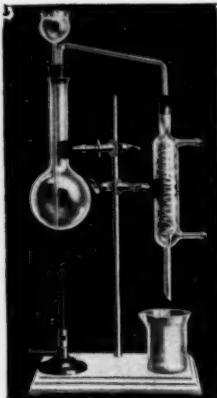


THE AMERICAN JOURNAL OF
**CLINICAL
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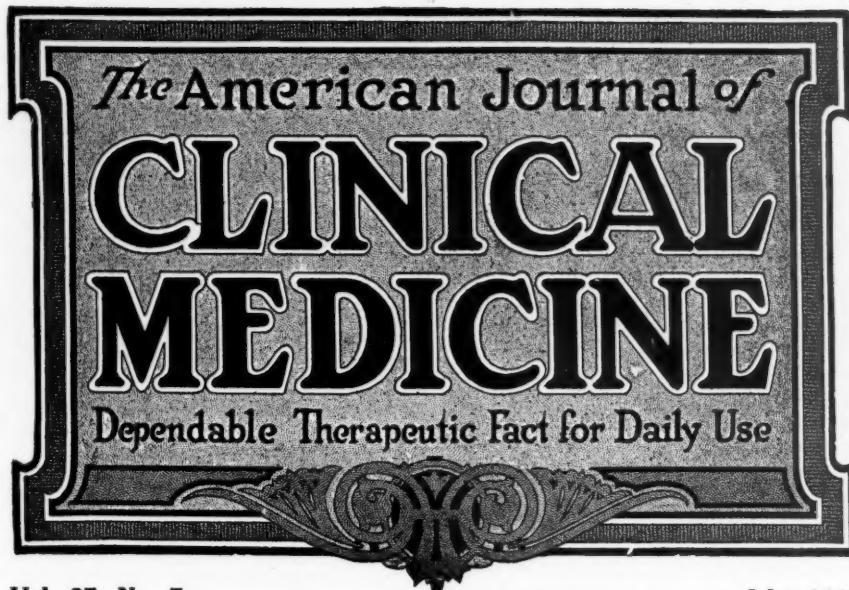
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Vol. 27, No. 7

July, 1920

Who Needs a Vacation?

JULY is a favorite month for vacation, at least with many people. That is only partly due to the fact that the great national holiday, The Fourth, occurs in this month; in part it is, because of the hot summer weather. The principal reason, however, probably rests in the general custom of turning the children loose some time during June, for several weeks, so that the whole family can join in a flitting out of town for a change of environment, for such rest as may be possible, and, likewise, for recreation.

Not so long ago, the present writer stuck up his nose at the idea of vacation, having been brought up under the old, strict discipline, when vacations, like birthday celebrations, were declared to be the prerogative of the rich. It seemed to him rather a waste of time and money, a bit of snobishness, in fact, to take a vacation, and, moreover, he felt that he "could not get

away", even if he had considered the expense justified in other ways.

An ancient philosopher declared that times change and we change with them; accordingly, we have altered our viewpoint and, now, are as cordially and insistently in favor of vacations as we were formerly indifferent or even opposed to them.

It may be that times and circumstances have become more strenuous. It also is possible that our individual resistance to mental and physical strength has been lessened. At any rate, we are of the opinion that all workers are in need of periodical relaxation. Among them, we want to include, with especial insistence, the wives and mothers.

Pater-familias, especially if he is a physician, may, and does, become very weary and often feels that he can not carry on without some sort of a break and change, without getting away from things. That

is most true. However, consider the wife of your bosom, doctor. Have you ever tried to look after things at home when she was ill; attending to the cooking, supervising the washing and cleaning; sending the youngsters off to school after seeing that they had their breakfast; taking care of the linen and the outer clothing, the mending, the marketing, and all the thousand and one things, small and picayune individually, but large and often terrifying collectively? Have you ever considered that the good wife has all these things to attend to, all this burden to carry, all these constant little nagging responsibilities to bear for three hundred and sixty-five days through the year? If one or two days of it make you want to run away and chuck the whole business, how do you think the wife feels about it?

We believe that, as already said, everybody, more particularly every physician, needs a vacation and should take one. We stick to that. However, we believe, no less firmly, that every wife and mother is in urgent and great need of a vacation fully as much as her lord and master. By this, we mean that she should be given an opportunity to be relieved of the cares of the household and family; she should be sent away from the kiddies and their everlasting, unceasing, inconsiderate (because unthinking) demands upon her time and attention. She should be taken away from the household cares. She should be given a rest from the necessity of planning three meals a day, for seven days a week, thirty days a month, and so on. In short, if you, doctor, need a vacation, so does the wife. If you need to get away and leave it all, having a substitute to take care of your work, provision should be made for the wife to go visiting, or, if she prefers to go to some quiet place or noisy city, for that matter, to rest, without the children and, if she wants to, without your devoted attentions. It may be heresy, but, the present writer is of the opinion that husband and wife are all the better off for a periodical separation.

The moral of all this is, let's all plan for a vacation, but do not, please, let us be so all-fired selfish as to hog the entire vacation for ourselves. Let us remember that our wives have earned and deserve a rest fully as much as we do. We may be dealing with large important matters. However grandiose they are, they do not cause

such a strain on our mentality and physique as do the constant, continued, never-ceasing, nagging little responsibilities of the housewife and mother.

Dear old nature! We are always fetching her out of the back-shop to use her as an argument, but, we are rightly agreed that some of her ways are too absurd for discussion. I don't overrate nature. The best of us have to take some trouble to circumvent her.—Barry Pain.

SUMMER DISEASES

With the approach of hot weather, comes again the annual problem of dealing with the diseases peculiar to the season in both children and adults. A generation ago, the high temperature was regarded as the main cause of these diseases. In a sense, this is true, though not directly; the hot weather, especially if prolonged, reduces the resisting power of the body to disease. However, as the infection that is the main cause of summer diseases is chiefly water-born or food-born, it is to these sources that we must give our attention in combatting the evil. The tendency of the high temperature, to hasten decomposition and the infection of food by the common housefly, suggests two fields in which our efforts are mainly required in the way of prevention. To this end, a never-ceasing campaign of education of the public, especially mothers, must be kept up, not only through the medium of public-health officials, and visiting nurses but, no less through the family physician, who should use his influence in the same direction.

Not only is the house fly exceedingly active in contaminating food and drink, but he is, often, the direct means of infection. Flies swarming over an infant's face may convey to its mouth the germs of intestinal disease. The first and most important duty, then, is the exclusion and destruction of this dangerous little scavenger, not forgetting the eggs and larvae in its breeding places, such as, stable manure, especially horse manure, and garbage of all kinds.

Food should not only be protected from flies, but should be kept at the lowest practicable temperature by the use of ice.

The most common form of hot weather disease is diarrhea, with or without pain, with or without vomiting. This may vary from the simplest form to true gastritis or

enteritis. The old terms, cholera morbus and cholera infantum, are somewhat loosely and unscientifically applied but serve to distinguish those cases in which the symptoms are violent, the stools frequent and watery and the signs of shock pronounced.

We should remember that diarrhea is a curative effort on the part of nature, an attempt to get rid of irritating and poisonous products; consequently, we should not be too ready to check this symptom unless it is too severe or prolonged. In many cases, we may even imitate nature with profit, by beginning our treatment with a laxative to clear out the digestive tract, and, sometimes, no other treatment is required.

For the relief of severe pain, morphine, opium, or codeine may be sparingly used. If the new analgesic and antispasmodic, benzyl benzoate, will do all that is claimed for it, it should be a welcome substitute for the opiates. It ought to be well tested during the coming summer.

The use of opiates should be limited, if possible, to one or two doses large enough to give relief, and no more. It must not be overlooked, however, that, in many cases, the opiates are really curative as well as pain-relieving. The old plan of putting them into the main prescription with other remedies is a bad one because the opiate is, in this way, continued in small, frequent doses, sometimes for several days, thereby deranging the digestive organs instead of restoring their normal functions.

If the diarrhea is too prolonged or if vomiting is troublesome, bismuth subnitrate is still our most reliable remedy. It should be given in large doses. For an intestinal disinfectant, the sulphocarbolates are admirable. Some physicians like to add small doses of calomel or ipecac.

Attention to diet is of the greatest importance. A certain amount of fasting is beneficial in most cases. On resuming the taking of food, the first meals should be simple—some form of milk or cereals; while meat, vegetables and fruits should not be resumed until the appetite craves them and the stomach is functioning properly.

With infants, the question of diet overshadows all others. The breast-fed child is comparatively safe but with those raised on the bottle the problem is often a serious one. Next to mother's milk, goat's or cow's milk is probably best, if modified to suit

conditions. The hardest cases to deal with are in those patients that have gradually developed indigestion and diarrhea and whose stomachs refuse to function properly no matter what changes are made in the food. This subject is too large to go into details here. Suffice it to say that, in addition to care in diet, the standard medication rests largely on the skilled use of bismuth, pepsin, calomel and ipecac.

I can understand why a man wants to marry a woman. A woman has beauty and charms. But, it's rather difficult to see why any woman should want to marry a man.—Barry Pain.

FLORENCE NIGHTINGALE

On the 20th day of last May, there occurred the centenary of the birth of Florence Nightingale, to whom the profession of nursing and all those who benefit from the devotion and knowledge of trained nurses owe so much. While we are a little late in referring to the occasion, we do not wish to be remiss in paying tribute to the wonderful qualities of this noble woman who pointed the way that, since then, has been followed by countless others.

To judge from the records of conditions prevailing in England and in this country, one hundred years ago, as regards the nursing of the sick, we are forced to conclude that Dickens' grotesque delineation of Sarey Gamp is hardly a caricature, but that it comes very close to being true to life. If we could compare Sarey Gamp with Edith Cavil, or Miss Delano, or, indeed, with any of the trained nurses of our acquaintance, we must realize the immeasurable difference and accord our gratitude to the memory of Florence Nightingale, whose devotion, whose persistence and whose determination proved the possibility for women to be nurses of the sick and yet remain gentlewomen in the truest sense of the word.

Miss Nightingale's success in lessening the terrible suffering in the Crimean War is a matter of history. To her training school for nurses, established in London, after her return from the Crimea, we in America owe particular thanks, since it was a graduate of that school who established the first training school for nurses in this country, namely, the one at Bellevue Hospital, and, incidentally, the late Miss Delano, who has been called the

Florence Nightingale of America, was a graduate of that school.

Many nurses have done wonderful things not only in the great war, just recently terminated, but also in the wars before that. All of them look to Florence Nightingale as their inspiration, almost their patron saint. Even the Red Cross, one of the most wonderful altruistic organizations that the world ever knew, owes its existence, in a way, to Florence Nightingale. Honor to her memory.

I often think that a beautiful statue is in some ways more admirable than a beautiful woman.—Barry Pain.

REGARDING NARCOTIC-DRUG ADDICTION

Writing in the *Journal of the American Medical Association* (May 22, 1920, p. 1439), S. Dana Hubbard divides habitual users of narcotic drugs into two general classes; namely, (1) those who suffer from a disease, or ailment, requiring the use of narcotic drugs, and (2) addicts—dope fiends—drug habitués: those who use narcotic drugs for the comfort these afford and solely by reason of an acquired habit.

Class 2 may be divided further into: (a) Correctional (underworld type); (b) Mentally defective (the constitutionally inferior person or the individual with feeble-mindedness); (c) Social misfits (the person whose maladjustment does not permit him to conform to social customs); (d) Fortuitous (the individual who has had an adequate reason for taking narcotics, but the reason has disappeared and the drug habit is continued because of the physical suffering which unaided deprivation brings).

Doctor Hubbard declares that bad associates and evil environment are the chief causes producing addiction among the youthful habitués in New York. Of 7464 cases observed from April 10, 1919, to January 15, 1920, in the Department of Health Clinic, 3.5 percent were morphinists, while 96.5 percent were heronists.

Despite the difficulties in the way of procuring narcotic drugs, due to federal legislation, it is known that the illegitimate traffic has increased enormously in recent years and has become a serious menace. It is through this channel that most of the addicts receive their supplies of narcotic drugs. This assertion becomes impressive

if it is considered that about 90 percent of the amount of opium and cocaine introduced into the country is said to be used for other than medical purposes, that is to say, illegitimately. Considering the fact that the per-capita consumption of opium in the United States is at least twelve times that in European countries, the menace of the problem becomes insistent.

As to the control of the narcotic menace, Doctor Hubbard declares it necessary to secure the cooperation, with the medical profession, of all charitable and social agencies in order to work out a program for the effective administration of antinarcotic laws, as well as the rebuilding of those unfortunate persons afflicted with the drug habit. He asserts that one of the very first needs is, to make compulsory the reporting by physicians and others of addicts of Class 2, in order that these persons may be known and given careful and suitable consideration. Another regulation is, that all prescriptions issued for opiates and cocaine should be in duplicate, one for the druggist and the other for some central agency, preferably a local department of health, so that the practice in this particular may be independently checked and controlled.

Regarding the best method of treatment, Doctor Hubbard insists that, in the vast majority of instances—99 percent—excellent results may be obtained by simple abrupt withdrawal and without medication other than catharsis. Some form of mild anesthetic to tide over the first two or three days of suffering, which is mainly psychic in origin, is desirable from a humane point of view. Scopolamine (hyoscine) is ordinarily used for that purpose, but it is stated that belladonna works equally as well.

It has been found that ambulatory treatment, including dispensary treatment, is not successful and, in fact, not desirable, because of the many disadvantages attaching to it. Consequently, ample provision should be made for hospital or institutional treatment to cover the stage of withdrawal and for the control, care, moral and mental upbuilding, as well as physical regeneration of those persons who require it and show the possibility of profiting from such treatment.

Doctor Hubbard sums up the problem of narcotic-drug addiction as being closely connected with the problems of life, while the underlying causes are more personal

than social. Treatment, he adds, is likewise individual and not specific.

This article is of especial interest if it is considered in conjunction with Doctor Bishop's book entitled "The Narcotic-Drug Problem" which is reviewed in this issue of CLINICAL MEDICINE (p. 497). It may be said, at the outset, that the two authors in question differ in so far as Doctor Bishop objects emphatically to the terms "drug habit," "dope fiend," "drug habitué," and so forth, asserting categorically that drug addiction is a disease and not a vicious habit or a perverted indulgence. We believe it well to follow Bishop in his sharp differentiation between opium and morphine users and those addicted to the use of cocaine and heroin. As Bishop points out, the former, in the majority of cases, are perfectly honest in their unfortunate disease and are in urgent need of the narcotic drugs in order to maintain a physical and mental equilibrium that enables them to accomplish their work. The latter, the users of cocaine and heroin, are found more frequently, in fact, almost exclusively, among the underworld derelicts and are prone to show signs of physical, mental and moral deterioration.

Keeping in mind Bishop's conclusions as to the nature of narcotic-drug addiction, it appears to us that Hubbard's classification is susceptible to amendment. In addition to, first, those who suffer from a disease or ailment requiring the use of narcotic drugs, and, second, "addicts—dope fiends—drug habitués: those who use narcotic drugs for the comfort these afford and solely by reason of an acquired habit," there are those users, commonly of opium and morphine, in whom the original disease or ailment requiring the use of the narcotic has been removed but upon whom the drug addiction disease has fastened itself. The latter malady, if we do not misunderstand Bishop, is a disease *sui generis* and must be considered as distinct of the primary malady. It is this disease, and not merely a reprehensible habit, that requires treatment. Doctor Hubbard classifies these patients in his class 2 (d), but, it appears to us that this arrangement is not quite just to them. They should be considered in a subdivision of class 1, in our opinion.

For the purpose of suitable treatment, both authors are agreed in emphasizing the necessity of individualizing strictly, treat-

ing each patient according to the peculiarities of his own individual case. As for the manner of treatment, we are impressed with Bishop's teachings and repeat what we have said in the review, namely, that the results of his investigations should be studied closely.

Eugenics teaches you how to be indecent scientifically, doesn't it?

SERIOUS ACCIDENTS

Recently, two serious accidents affecting physicians and, in one case, the wife of a physician, came to our notice which contain an urgent argument for the abolition everywhere of the dangerous grade crossings. In these days, when not only the railroads but private horseless conveyances, namely, automobiles, travel at considerably higher rate of speed than used to be possible formerly, those portions of the public highway that are intersected by railroad crossings should be made safe for the public, best by elevating the railroad tracks. This has been done in many cities. In smaller towns, and often in large cities in places, much neglect and carelessness still is manifest and many accidents are taking place that could easily be prevented.

Mrs. L. F. Schmauss, the wife of Dr. L. F. Schmauss, of Alexandria, Indiana, tells us that Doctor Schmauss was killed, on February 27, by a Big Four passenger train, his auto being struck while on his way to make a professional call, killing the good doctor instantly. It happened on one of the most miserable crossings, two miles north of the city.

On April 23, at about 7:30, Dr. Edward Schoor and wife, of Hubbard, Oregon, were driving north from Hubbard, intending to cross the Southern Pacific tracks on G. Street. They were met squarely at this crossing by a northbound extra, made up of engine and caboose, traveling at a high rate of speed. The car and occupants were thrown clear off the track, the occupants ninety feet in a direct line from the center of the track where the accident occurred; the car landing beside the switch on the west of the main track, about seventy feet from the crossing. The car was completely demolished. Doctor Schoor and Mrs. Schoor were thrown clear of the wrecked car, seemingly having been thrown through

the top of the car. He was thrown twenty feet beyond, nearer the fence and Mrs. Schoor was thrown about the same distance in a direct line with the car and was found beside the outer rail of the switch, the shock of the collision proving fatal. The internal injuries were so serious that her demise was immediate. Doctor Schoor's injuries were quite serious and he is at this writing still confined. It will never be known how he could escape such an accident with his life; no one can figure it out.

All moral laws are compatible with good health.
—Dr. V. E. Lawrence.

THE DOSAGE OF REMEDIES

In the textbooks of *materia medica* and *therapeutics*, the discussions of the various drugs usually contain minimal and maximal doses that are calculated for adult patients. Sometimes, the amount considered safe to be taken in the course of twenty-four hours is indicated. Usually, remedies are suggested for administration three times daily, before or after meals, or between meals, as the case may be.

When it is a question of securing a general systemic effect that can be obtained only after medication continued for some time, such as, for instance, the benefits of carminatives and tonics, that sort of dosing may be perfectly all right and, indeed, is unobjectionable. In the case of remedies that are intended to facilitate the disintegration and digestion of food substances, or in the case of those that must be given while the stomach contains food, so as to prevent an irritating action upon the gastric mucosa, the same method of procedure is justified.

However, if it is desired to secure a definite, regulating action on a certain system of the organism, say, the circulatory organs, or the urinary organs, or the respiratory organs, a mere guessing at somewhere between the minimal and maximal dose and a direction to take it, two or three times a day, before, after or between meals, is, to our way of thinking, haphazard and anything but scientific. Supposing it is desired to support the heart, the function of which is gravely interfered with through endocardial involvement of an acute infectious disease, such as influenza; in the event that cardiac symptoms have made their appearance and cardiac

distress is noticeable, it is by far better to administer a small dose at frequent intervals until physiologic effects begin to make their appearance. This procedure accomplishes the end in view, that is to say, the relief of the overburdened heart; also, the remedy is given gradually in doses that are individually quite safe until the action becomes manifest, at the same time, the total of the doses given, calculated with reference to the time factor, is established and, theoretically the safe dosage for that particular patient at the given time and under the existing circumstances. In case a like attack of distress were to take place in the near future, it would no longer be necessary to start with minute doses but a larger dose might be given, the size being calculated with reference to the first experiences, in order to secure results more promptly.

Supposing we are called upon to relieve an attack of bronchial asthma in which the spasmodic state of the bronchioles is very marked. We find, from experience in this patient, that it requires three capsules containing hyoscyamine sulphate, gr. 1-1000; quinine, gr. 1-250; strychnine, gr. 1-128, at thirty-minute intervals, to give relief. On occasion of the next attack, we shall start the patient with a first dose of three such capsules, having found, from experience, that this dose is quite safe for this particular patient and may be all that he requires.

Again, there may be a patient in serious physical, nervous and mental distress who has not slept for many nights and whose condition is seriously aggravated by the want of sleep. Under those circumstances, a hypnotic is clearly indicated, especially if the ordinary simple measures intended to produce drowsiness have proved inefficient. We know from experience that, in many instances, one 5-grain tablet of barbital sodium (veronal sodium) is sufficient, while other patients require two or three times that amount. We shall, therefore, order, the first evening, one single tablet which may be repeated in the course of one or two hours in case of need. The results of that night's medication will afford a guidance for the direction to be given during the succeeding nights until we have reason to conclude that the insomnia habit has been broken and that the

patient probably will sleep without artificial aid. To start a patient with a 10-grain dose of barbital, would be foolish because he might get perfectly satisfactory action from less than that amount.

There are some cases of neuralgia, so called, of the congestive type that are amenable to a combination of aconitine with glonoin and, perhaps, cactoid. Aconitine is deliberately prepared in granules of minute and perfectly safe dosage, namely 1-800 grain. This amount is not often sufficient to produce results. Nevertheless, this dosage is maintained because it is very easy with it to ascertain the quantity required in a given case to produce results. A combination like the one just mentioned is best administered in intervals of fifteen to thirty minutes, until the patient is relieved or until the physiologic effects of aconitine manifest themselves by numbness of lips and tongue. On a later occasion, if the neuralgia attack returns, etiologic treatment in the meanwhile having proved ineffective, larger doses may be given in accordance with the experience during the first attack.

In our opinion, the secret of successful dosage is, to administer the potent remedies, more especially, the alkaloids, in small doses that are known to be safe, at frequent intervals, until certain effects become manifest.

There is religion in everything around us—calm and holy religion in the unbreathing things of nature, which man would do well to imitate.—Ruskin.

YOUR LIBERTY BOND

The United States Government borrowed money from you to finance the war. You hold the Government's promise to pay you back. This promise is called a Liberty Bond, or Victory Note. On this Bond are stated the conditions under which the Government borrowed the money from you.

For instance: If you hold a bond of the Third Liberty Loan, it states that, on April 15th and October 15th of each year until maturity, you will receive interest on the amount you paid for the bond. Other issues bear other rates of interest and other maturity dates, all of which are clearly stated on the bond.

Now, if you keep your bond until the date when the Government pays you in full for it, you do not need to worry if, in the meantime, the price is low one day or high

the next. You and Uncle Sam are living up to your agreement with each other, and neither will lose by it.

On the other hand, if you sell your liberty bond now, you will find that the man you sell it to will not give you a dollar for every dollar you paid for it. The price has been brought down because so many people are offering to sell their bonds. If the market is flooded with tomatoes, you can buy them cheap, but, if everyone is clamoring for tomatoes and there are few to be had, the price goes up. The same is true of liberty bonds. Short-sighted people are dumping them on the market and wise ones are buying them.

The best advice that can be given to the owner of a liberty bond is this: Hold the bond you bought during the war; it is as safe and sound as the United States Government itself.

Buy as many more at the present low rate as you can afford. If you hold them to maturity, you are bound to make the difference between what they sell at now and their face value. You will also receive good interest on your investment.

Hold on to your Liberty Bonds and buy more.

Search out the wisdom of nature, there is depth in all her doings; she seemeth prodigal of power, yet her rules are the maxims of frugality.—Tupper.

THERAPEUTICS A SCIENCE

It is often asserted that therapeutics is not a science, because there are many uncertainties connected with it. This is an error due to a misconception as to what constitutes a science. Therapeutics is both, a science and an art. A collection of facts about it—established and undisputed facts—constitutes the science; the principles and methods governing the application of those facts, constitute the art.

It is, perhaps, not an exact science; still, many sciences are not exact. In fact, few are. In every science, from agriculture to zoology, there are things that have not been fully proven; yet, it does not follow that agriculture and zoology are not scientific. The essential thing is, to discriminate carefully between the things we are certain about and those that are still in doubt.

In building up a science of therapeutics, the difficulties are great, from the nature

of the case. Nevertheless, there has been gathered a respectable collection of indisputable facts on the subject, and this array of facts might be larger if every physician would do his share in using scientific methods in his work. This means, using, as far practicable, only one drug at a time and observing its effects, taking into consideration all the circumstances in the case. In studying the effect of a drug upon the diseased organism, there are so many factors that contribute to the result, that it is difficult to determine the part played by each one.

Let us take a concrete example. A physician uses some drug or other therapeutic measure and gets a brilliant result. Full of enthusiasm, he reports the case. Others try the same remedy and are disappointed. Perhaps he himself fails in his next case. What is the explanation? Simply, that the apparent success in the first case was merely a coincidence. Contributing to the successful issue, there may have been suitable diet, favorable weather conditions, a cheerful mental attitude, fresh air and exercise, or, since most acute diseases are self-limiting, the disease may have run its course and nature asserted her normal recuperative force.

Hence, we need careful observation, and, above all, frequent repetition in the use of a remedy in order to draw correct conclusions. Either to accept or reject a new remedy on too slight evidence, is unscientific.

In settling the value of a new remedy, then, the essential things are: First, to use it alone, and, second, to test it often enough to eliminate all other factors in the result.

Who loves not the shady trees,
The smell of flowers, the sound of brooks,
The song of birds, and the hum of bees,
Murmuring in green and fragrant nooks,
The voice of children in the spring,
Along the field-paths wandering?

—T. Millar.

SHALL THERE BE AN AMERICAN CHEMICAL INDUSTRY?

What it meant to Germany (and what it means to us) to have a fully developed chemical industry during the war, is well set forth in *The Manufacturers' Record*, as follows:

"There were 30,000 expert chemists in Germany before the war, and, allowing for

death by natural causes, they are there yet. Germany never permitted these men to get to the front. She kept them in the rear, where every one of them was potentially worth 1,000 or 10,000 fighting men.

"In 1913, at Bogota, N. J., Dr. Walter Scheele, a German, discovered mustard gas. Through Captain von Papen he sent the formula to Germany when the war began. That was the gas which was first used on August 25, 26 and 27, 1917, and the British had some 20,000 casualties within six weeks. They did not know just what they were going to do.

"Indeed, the Germans 'put over a gas, in 1917-1918, that went through our masks like water through a sieve. We spent some exceedingly anxious months, in 1918, endeavoring to develop a method of stopping that gas, though, fortunately, the Germans never succeeded in putting it over in sufficient quantity to be troublesome. We did learn how to put it over in sufficient quantity, and we were afraid that they would learn how to do it, first.' So testifies Colonel Fries.

"When the great German drive started, in the latter part of March, 1918, I have not any hesitation in saying that 5,000 tons of mustard gas would have absolutely stopped them—yes, 1,000 tons probably would have stopped them—but, we did not have it and neither did the French or British have it. We did not have any mustard gas until June, 1918, eleven months after it was introduced. During that time, there were probably over 300,000 casualties caused among the British, French and Americans by that one gas alone."

"That is what Colonel Fries testified, and the method by which the Allies finally secured mustard gas in quantity was developed in a French former dye establishment."

At the present time, the great German chemical firms are very much alive. In spite of the piteous pleas being made in their behalf, by germanophiles in this country and elsewhere, we learn from *The Journal of Commerce* that, last year, the German firm of Bayer made a profit of about \$7,000,000.00—more than double that of the preceding year. Lucius & Bruning made about \$6,000,000.00, as compared with \$3,000,000.00 the preceding year, while the Berlin Aniline Color Works paid a divi-

dend of 18 percent, as against 12 percent the year prior.

The Germans are really in a very favorable condition for export, on account of the, to them, favorable situation of exchange, which permits the chemical manufacturers of that country to purchase labor at the equivalent of 16 cents a day in our money.

Do you know what this means to America? It means that Germany is out to reconquer the industrial world and, through it, to obtain leadership in the political world. The chemical industry is the key to their future and they realize it. Do you realize that, what it means to Germany, it means also to us? Are you willing to go back to the old position of dependency upon Germany, not only for dyes, intermediates and explosives, but also for medicinal preparations that you use every day? American chemists are the equals of any in the world. What the Germans have done, our chemists can do in this country, providing they receive adequate support. If you are favorable to the development of the chemical industry in America, let your senators and your congressmen know how you stand.

From all the misty morning air, there comes a summer sound.
A murmur as of waters from skies, and trees, and ground.
The birds they sing upon the wing, the pigeons bill and coo.—R. W. Gilder.

RESEARCH WORK ON DIGITALIS

Various investigations have been undertaken in this country on the active constituents of digitalis as represented by fractions isolated from the crude drug by different solvents. The work has been done entirely from the standpoint of the pharmacologist, and no attempts, so far as known, have been made to determine whether these fractions have a reasonably constant composition from the chemist's viewpoint.

A careful study of the chemical composition of the different extractions probably will prove of some value in explaining the widely varying results obtained from samples of the crude drug.

This work has been undertaken under the auspices of Frederick Stearns and Company, Detroit, Michigan, who, some twenty

years ago, established the Stearns' Fellowship for research work at the College of Pharmacy of the University of Michigan. The Stearns Fellowship for 1919-20 is held by William J. McGill, who obtained the degree of Bachelor of Science, in pharmacy, from the University of Michigan, last year. His researches on digitalis are being conducted under the direction of Professor Kramer, as part of the requirements for the degree of Master of Science.

The plants of digitalis purpurea used in this research were grown in the Frederick Stearns and Company Medicinal Plants Garden, at the University of Michigan, under the supervision of Doctor Krämer. It may be of interest to note that the drug from the first-year plants harvested in 1919 assayed about three times the U. S. P. requirements, this being virtually the same result obtained from first-year plants harvested in 1918.

The result of this research work promises to be of great importance and value. It is to be hoped that it will make possible the production of more definite digitalis preparations, many of which now leave much to be desired from the viewpoint of constancy as to composition and action. We shall look forward to the publication of Doctor McGill's results with interest.

SUGGESTIONS FOR THOSE WHO EMPLOY PHYSICIANS

The suggestions for those who employ physicians, which we copy in the following, we found on the back of a physician's statement. The irony that dictated these "hints" is sufficiently sharp that it might accomplish some good if the text were brought to the attention of certain laymen who are guilty of various sins of omission and commission against their physicians.

"When you send for a physician, be very careful not to give him any idea as to the nature of the case he is called to see. He might want to bring appropriate medicines or instruments.

"If possible, always send for a doctor in the middle of the night. It gives him a better chance to keep the family awake giving medicine. In selecting your physician, always consult some old female busybody with a ball-bearing tongue. They are usually on hand and ready to accommodate you when you have a long case of sickness.

"Change doctors once or twice just for luck. You do not have to pay those whom

you discharge. If a doctor loses a case, advise everybody not to employ him. Doctors should cure their cases, not lose them.

"If the old physician gets cranky and will not answer your call just because you will not pay him when you can, drop him and get the new doctor who does not know you so well.

"If you see a doctor coming along the road in an auto, bother him a little by holding the road. He don't need to be in a hurry. The patient will probably die anyway; when you wish to cheat a doctor out of his pay and at the same time be able to look your neighbors in the face like an honest man: find a whole lot of fault with him. This places all the blame on him. Let your doctor bill run as long as possible. Doctors do not pay their bills and do not need money."

Through the open door
A drowsy smell of flowers—gay heliotrope.
And white sweet clover, and shy mignonette—
Comes faintly in, and silent chorus lends
To the pervading symphony of peace.

—Whittier.

IT OCCURS TO US THAT

The "Great War" did not develop any really great men but very many "great opportunities" of which a number of small men availed themselves and, thereby, acquired great fortunes.

The great American disease at this time is "Jazz." We are being syncopated and saxaphoned into syncope. Convalescence, under the circumstances, threatens to be a long and tedious process.

Having been paternalized, mobilized, Hooverized and de-alcoholized, we are now being victimized, and seem to be so thoroughly hypnotized that we come back for more.

An appropriate coat of arms for the average inhabitant of these United States would be: A dollar *argent*, with a sheep *couchant* in the center field, *vert*, surrounded by profiteers *noir*, removing the last vestige of wool with electric clippers. In right upper quadrant, Woodrow Wilson *dormant*, and in left Herbert Hoover *rirant*; the whole surrounded by the motto, "By Trust I'm Bust."

The dear old lady who, after submitting to a thoracic examination and being in-

formed that the physician was able to hear the heart sounds through a stethoscope applied over the sternum, went home and told her family that "Doctor _____ applied a telescope to my stern and found my heart quite natural," has nothing on the gentlemen who, learning from his doctor that he had a gastrophtosis, solemnly assured his family later that "gas had dropped into his oasis."

After all, the best things of life are still procurable without money or price. The sun rises and sets in his old-time glory; the blue waters of the lake ripple in the breeze and become silver under the light of the June moon; the brooks tinkle and murmur; the birds carol; the flowers bloom and the wind whispers through the leaves. The long road stretches out, inviting us to travel away from bricks and the clang of traffic to God's country—still unspoiled in spots and still capable of providing that Balm in Gilead, which alone will revive the tired and discouraged soul. Men may raise a miniature Hell on earth, but, God's in his Heaven and all will be well. *Te deum laudamus!*

There are at least 200 different remedies for chronic leg ulcer and half as many "effective methods of treatment." Now, if someone would only tell us how to cure these confoundedly chronic, rebelliously recurrent and pertinaciously persistent solutions of continuity, we could face the future more cheerfully.

P. S. We've been telling other people how to do it for years.—S. O. S.

The sapient remark by a Berlin journal that, since Wilson's incumbency of the White House, the American people have developed an antipathy to superior intelligence in their presidents, may be regarded as another "Hun atrocity" by some, but there is a certain efficiency about the statement which satisfies others completely.

What this beloved country of ours really need is an "eminent internist" at the helm, assisted by a corps of robust and enthusiastic surgeons.

On going to press, we received word of Dr. Finley Ellingwood's passing away, in California.

Leading Articles

The Therapy of Tuberculosis

By THOMAS J. BEASLEY, M. D., Indianapolis, Indiana

WE can not approach the consideration of the important subject, indicated in the title of this paper, without first emphasizing the importance of early diagnosis, because no treatment of this disease is of value unless we are fortunate enough to apply it in the early stages of its manifestations.

In the last decade, the subject of tuberculosis has become one of the great public problems and the propaganda that has been waged in behalf of this cause has accomplished much good, more perhaps than is generally realized. The people have learned much about this disease and now appreciate that it is curable if recognized and treated before it has advanced too far. Many patients now present themselves to the physician for examination upon the earliest suspicion that they be developing tuberculosis.

May it not be opportune to ask ourselves this question: "Do we always do all that is possible to make a diagnosis?" Even supposing that the patient's fears are not well founded, here is presented a chance to make an early and correct diagnosis and by so doing protect our patient from the consequences of the progression of the disease and ourselves from the very unpleasant task of treating, later on, a far-advanced consumptive. It is apparent that the day is rapidly passing when our diagnosis will be questioned in the event that our patient recovers and is saved the terrible cost and suffering of advancing to the later and fatal stages of the disease. Therefore, let us avail ourselves of the opportunities that this common knowledge of the disease has brought. When patients

present themselves, who suspect that they may be developing tuberculosis, make it plain to them that it is always a most difficult task to make an early diagnosis and that it may require considerable time and much work.

Careful and Complete Examination

Appointments for chest examinations should be made aside from the regular office hours; history cards should be kept for record; temperature charts for recording temperature findings; thorough and complete examinations of the chest should be made and, if need be, many repeated examinations; tuberculin tests and sputum examinations should be made and, lastly, that which is frequently necessary, prolonged observation of cases that cannot be easily diagnosed. Let this observation be long enough to assure us positively of our diagnosis. Pray, do not let anyone say that he cannot afford to spend so much time in making a diagnosis. I have followed this plan for years and have yet to find a patient who, when the matter has been carefully explained to him, ever objected to the payment of a reasonable compensation for services rendered; on the contrary, I have, many times, been rewarded by not only making an early diagnosis and curing patients, but in the larger and more satisfactory sense that I made friends of those thus served.

This phase of my subject must not be passed without urging that we be frank and sincere in dealing with patients, having no fear to speak plainly to them and to their relatives. If they do not accept our diagnosis and advice, they are the losers. It is far more to the physician's interest

that he get out of the case in this manner than to be later condemned for not making an early diagnosis and presenting the subject frankly and honestly.

Active Treatment for Tuberculosis

The diagnosis being made, be it early or late in the manifestation of the disease, our thoughts must turn to its treatment. Of all diseases, this is the most untreated one from the standpoint of therapeutics. It has been said that no drug will cure tuberculosis. To this dictum all will add sanction, but, yet, it may not be understood to mean that drugs are contraindicated. Is it not a fact that we have come to depend too much upon good food, open air and regulated rest and exercise? No one questions the need and value of these agents for a moment, not only in the treatment of tuberculosis but in the treatment of all other diseases and in the maintenance of good health. In the absence of active disease, may we ask, has not the tendency been to omit drugs needed in treating patients afflicted with this disease? We are doctors, students of medicine and disease. In us, the people have great confidence; they come to us with the thought that we can heal them with medicine and drugs; if we can offer nothing but food, fresh air and rest, they wonder of what benefit we can be to them. The patient knows all too well that, in the treatment of all other diseases, he receives medicine in conjunction with the general measures. Therefore, is it any wonder that so many of these patients become adherents to some of the many drugless "isms" that flourish on every hand?

In presenting a paper on the therapy of tuberculosis, one needs first to almost apologize for writing upon this time-worn subject. The ever-changing current of professional opinion relative to the merits of remedial agents carries us today away from that which was in favor yesterday and we shall be as eager to welcome the offerings of tomorrow. In the consideration of new remedial agents, we are prone to forget those remedies that have been proven of value as an aid, in the past. So, now, let us consider in detail the needs of tuberculous patients from the standpoint of therapeutics.

Anemia of Tuberculosis

In this, as well as many other diseases, it is well that we give careful attention to the altered chemical and biological condi-

tion of the blood and its constituents, since through the blood alone oxidation, elimination and reconstruction can take place. In tuberculous patients, there is an early and extensive impoverishment of the blood, manifesting itself in a low hemoglobin index as well as a low count of the red cells. Added to this visible blood picture, we find it laden with toxins. Is it not evident that certain drugs can play a helpful role in this condition?

Anemia is defined as a reduction of the corpuscles of the blood, as a whole or in part, or of certain of its most important constituents, such as, albumen and hemoglobin. Microscopic pictures of anemic blood differ. In some cases, there is an alteration in the form of the corpuscles; in others, an altered ratio of cellular elements; in all, there is a diminished color picture. Hemoglobin is the base of this color, so, anemia still means a hemoglobin poverty. The hemoglobin index of most tuberculous patients will show a 20- to 30-, or even a 40-percent hemoglobin deficiency. When we consider that these patients have suffered destruction of lung tissue and, hence, cannot take into the system a normal amount of oxygen, it is at once apparent that, if there is a great deficiency of hemoglobin, their systems are greatly under-oxidized. In evaluating the importance of this fact, we must not forget the two-fold function of the hemoglobin, namely, that, when it has given up its oxygen in the tissues, in its return in the circuit of the circulation we find it laden with carbonic-acid gases to be eliminated.

Prescribing Iron

Hemoglobin constitutes about one-eighth of the weight of the blood; one-half of the weight of the red corpuscles, and 86 percent of their solid ingredients. One Gram of hemoglobin in aqueous solution absorbs 1.27 Grams of oxygen, a little more than one and a quarter times its own weight of oxygen. It is estimated that the blood constitutes 8 percent of the entire body weight in health, and iron constitutes one-half percent of this 8 percent. This makes the iron 5/1000 of the body weight, or about 6 grains of iron in the blood of a 160-pound man.

The whole amount is less than the ordinary daily dose of metallic iron usually prescribed. Metallic iron is the old classic remedy for anemia, but Bernard and Binge

have pointed out that iron and its mineral salts are rendered insoluble in the intestines by the sulphides there present, and that 80 percent of all such mineral iron administered by mouth is passed unab-sorbed and can be recovered in the feces. From these observations, it has been claimed by some writers that it is not worth while to administer inorganic iron salts by the mouth, yet, it is possible to give very large doses of iron in that way. If 20 percent of the amount administered is absorbed, this would equal 2 grains, if 15 grains were given daily. This amount would be sufficient to stop the waste of hemoglobin and restore any ordinary deficiency. Except in very unusual cases, the administration of 5 grains of ferrous carbonate, three times daily, would rebuild the hemoglobin. In very marked cases the glycerophosphate or the citrate of iron could be administered hypodermically. By thus maintaining a normal or nearly normal hemoglobin index, we can greatly aid our patients in overcoming tuberculosis infections by improving oxidation and elimination.

As to the Blood Salts

It has long been my thought that, when we think of anemia we think only of the iron content of the blood, failing to take into account the other blood salts, namely, calcium, sodium, phosphorous, and magnesium. We can demonstrate the iron deficiency by the hemoglobin index, but, unfortunately, we can not demonstrate the deficiency in the other blood-salts. Still, such a deficiency exists and we have yet much to learn concerning the function of the blood salts. Thus, with this larger view of anemia, it is well that we give thought to the other blood-salt deficiencies and their relationship to the various functions of the blood, and especially as related to the healing of tuberculous lesions.

The importance of the blood-salt sodium can not be estimated. Nevertheless, its relationship to the vital functions of not only the blood but all body structures must be very important. When we consider the extensive and valuable use of this salt in the form of physiologic-salt solution, its importance is at once apparent. How many lives are saved each year by the administration of physiologic-salt solution? It is the master remedy in overcoming shock; no operating room is complete without its

ever-ready supply of this blood salt. The water in which the salt is given has its value; however, the universal use of sodium-chloride solutions must attach more of their value to the salt than to the menstruum.

Since there is so much value in the administration of this one of the five essential blood salts, I am of the opinion that a combination of all of the five blood salts, in the proportion in which they occur normally in the blood stream, would produce a physiologic-salts solution, instead of the physiologic-salt solution as it is now used, and, no doubt, such a solution would be a great improvement over the use of a single salt. If there is such great value in one of the blood salts, there must, likewise be virtue in them all. More, since they occur in chemical combination in the blood stream, their combination in a solution, which we could call physiologic-salts solution, would give us the value of all of them instead of the use of just one member of the group. This thought leads me from the trend of my theme; yet, it is used, for the purpose of citing the widely recognized and useful employment of one of the blood salts, to suggest a combination of these salts into one solution, which, though, belongs more in the realm of the surgeon.

Calcium Deficiency

The subject of demineralization as related to tuberculosis has received much consideration, especially that of calcium deficiency. All are familiar with the frequency of calcium deposits in healed tuberculous lesions of the lungs. These facts have been impressed upon us by their observation in the autopsy room and in the X-ray laboratory. Believing that this will be conceded by all, is it not fitting that we should devote our efforts to the study of this peculiar phenomenon in the healing of tuberculous areas of the lungs? As the organism does seem to use calcium in an elective and selective manner in bringing about a cure of this disease, and assuming that there is a deficiency of this salt in the blood of the tuberculous, may not the treatment be improved if in some efficient and direct manner we supply the blood with this salt?

The Author's Investigations With Calcium Salts

Ten years ago, I became interested in the relationship of calcium to tuberculosis and experimented with many calcium salts, pre-

scribing many of them in various combinations. While I became convinced that they were of marked benefit to tuberculous patients, I concluded that, in cases of well established tuberculosis, the power of assimilation was so impaired that it was impossible to introduce a sufficient amount of calcium into the system, by oral administration, to supply the amount needed. It was also observed that the alkalinity of these salts soon impaired the gastric digestion, so that the drugs had to be withdrawn before much good could be accomplished.

In 1913, a series of animal experiments were conducted for the purpose of determining if it were possible to inject calcium solutions into the blood stream in sufficient quantity to not only supply any deficiency of this salt that may be present, but, also, to maintain an excess of this element in the system. After extensive observations of the effects of intravenous injections of various doses of different calcium salts upon animals, it was determined that calcium chloride was the most suitable of the calcium salts for intravenous use. It was possible to make stable solutions from the chloride and, since this salt soon oxidizes in the presence of oxygen and, so, is promptly converted in the blood to calcium oxalate, its intravenous use caused no untoward effects upon the animals used for experimental study.

Calcium Chloride Intravenously

After these studies and observations with animals had extended over a sufficient length of time to warrant the conclusion that it was entirely safe and logical to administer calcium intravenously, tuberculous patients were placed upon this form of treatment, and the first report of this work was published in the January (1915) issue of the *Indianapolis Medical Journal*. A more comprehensive report upon this work, entitled "The Intravenous Use of Calcium Chloride as an Aid in the Treatment of Tuberculosis," including tabulation of results in 120 cases, was published in the July (1917) issue of the *New York Medical Journal*. In the August (1919) issue of the *Indianapolis Medical Journal*, there was an article entitled, "Further Observations in the Use of Calcium Chloride in the Treatment of Tuberculosis."

In each of the above articles, much was said relative to the nature of the solution used, frequency of injections, and dosage. Earlier in this work, a great deal of

thought was given to the determination of a proper dosage, and effort was made to establish a dosage and technic of injection that would be as nearly perfect as possible and, yet, cause no reaction following administration. It was observed that some tuberculous patients could tolerate larger doses than others. This was thought to be due to the fact that there is a more marked deficiency of calcium in some subjects than in others. In an effort to standardize the dosage of calcium to be given, a careful study of the coagulation time of the blood, of all patients treated, has been made, it being found that nearly all tuberculous individuals have a delayed clotting time. Very rarely is a case encountered that does not show a delayed coagulation time of from four to five minutes. In uniform ratio to the time over which the disease has extended and in proportion to the amount of destruction that has occurred in the lungs, this time is prolonged, not infrequently extending ten, fifteen and (in hemorrhagic cases) as much as twenty minutes beyond the normal coagulation time of eight minutes. It was sought to ascertain whether this delayed coagulation of the blood of tuberculous patients bore any relation to the amount of calcium present in the blood. Careful estimation of the coagulation time, before injections were begun, was compared with readings taken after each fifth injection, it being found uniformly that, as the injections progressed, the coagulation time was reduced and that, in due time, it was brought down to normal, even, frequently, below normal.

Calcium Shortens Coagulation Time

From the results of this study of the coagulation time and its almost invariable reduction through the intravenous injection of calcium chloride, it was concluded that, for the present at least, the observation of the coagulation time offers a dependable guide as to dosage, and that this reduction in coagulation time, following the intravenous administration of calcium, affords at least some proof that there must be a definite deficiency of this element in the blood of the tuberculous, its direct introduction into the blood stream making up that deficiency. Therefore, regular observation of the coagulation time is necessary in each individual case as an aid for determining the dosage. In my work, the dosage has been graduated in direct ratio to the coagulation time found at the be-

ginning of the injections, regulated so as to bring the coagulation time down to normal, and, thereafter, that dosage was given that maintains a normal or near-normal coagulation time.

The dosage of calcium chloride that has been found necessary to accomplish this is a beginning-dose of 1 grain, gradually increased until a maximum dose of 6 grains is given. At this point, the dose is slowly decreased as the coagulation time shortens and that amount is then given that will maintain the coagulation time at normal or slightly below normal. The injections, at first, are commonly given each five days, while, as the coagulation time is reduced, more time is allowed between the injections. In patients who have a marked mixed infection, the injections are often spaced ten days apart, and, on the fifth day intervening between the intravenous injections, hypodermic injections of mixed-catarrhal-combined vaccines are given. At each interval when vaccine is given, we also give a separate injection of 1 mil of nuclein. This method has been very successful in combating the associated mixed infections.

Many difficulties were encountered in making clear, stable solutions of the calcium salt, the following careful routine method of preparation having been found indispensable:

Method of Preparation

The pure calcium salt is dissolved in freshly-distilled water and brought to the boiling point. It is then neutralized by either acid or alkali, and titrated. From this, the proper-strength solution is made. The solution of proper strength is then passed through a Pasteur-Chamberland filter into a measuring burette carefully protected from dust. From here, the solution is run into sterile ampules made of tested glass and sealed with rubber stoppers, after which the sealed ampules are sterilized by fractional sterilization. This method yields a solution free from acid and is permanent. It is sterile and ready for immediate use. The salt is always suspended in 20 mils of distilled water and this amount of the solution is given at each injection.

Results of Treatment

After an observation extending over six years and covering the treatment of about 250 cases, as well as the observation of many cases in the practice of my confrères, I have come to the conclusion that the in-

travenous use of calcium solutions is of value as an aid in the treatment of tuberculosis. It is not the purpose of this contribution to create the impression that this line of treatment is offered as a radical departure in the treatment of tuberculosis, but, on the other hand, I believe to have proved it of value as an aid in the treatment, and it is recommended that the method be used only in conjunction with any or all of the other recognized and established methods of treatment.

The results following this procedure have, in a majority of the curable cases, been surprisingly good, while in many instances patients, who had failed to improve under other methods of treatment, have made excellent improvement and uneventful recovery when placed on calcium injections. Soon after the injections are begun, there is a decided change in the clinical picture. The appetite and strength improve, cough and sputum lessen. Calcium thus given seems to have a very marked tonic effect. Almost without exception, the patients become more comfortable and content upon a feeling of wellbeing.

The intravenous injections of calcium have been used in pulmonary cases, and in six cases of glandular tuberculosis. The glandular cases were extremely severe and of long duration, and had all been operated upon. While years had passed, in some cases, suppuration still was continuing; each patient was very toxic and had lost weight. Prompt improvement and complete cure have been attained in all the glandular cases treated.

Patients with pulmonary tuberculosis who are treated by the intravenous injection of calcium seldom have hemorrhage. I have had only two cases which became hemorrhagic while on this plan of treatment, while in many hemorrhagic cases the hemorrhages ceased when the patients were placed on calcium injections. Many patients in whom many or all of the agents recognized as valuable in the treatment of pulmonary hemorrhages had failed to stop the bleeding, were promptly relieved by the intravenous administration of calcium. One case is recalled in which the clotting time of the blood was thirty-two minutes, and hemorrhages had persisted for eight days. Every effort had been made to control the hemorrhage by the various hemostatic preparations. After five injections of

calcium chloride, 20 mils of a 5-percent solution, the clotting time was reduced to seven minutes. No hemorrhage occurred after the first injection. It would appear from these observations of the action of calcium, in some hemorrhages where the various hemostatic preparations have failed, that calcium is the entity lacking in the coagulation of the blood. It, therefore, is evident that calcium must activate the other entities that favor coagulation.

Dr. Maurice Fishberg published an article, in the June 28, 1919, issue of the *Journal of the American Medical Association* entitled "Calcium Chloride as a Palliative Agent in the Treatment of Intestinal Tuberculosis," in which he reports the results obtained in seven cases of intestinal tuberculosis by the intravenous injection of a 5-percent solution of calcium chloride. In these cases, he states: "After using the various vegetable and mineral astringents, large doses of opium or of its derivatives produced only a semblance of relief, but, as soon as the opiates were stopped, the pain and diarrhea reappeared more severe than before." Of the seven cases reported, good results were obtained from calcium chloride in six cases. In the seventh, no benefit was noted. Doctor Fishberg makes the following generalization:

"When the diarrhea in a tuberculous patient is due to dietetic indiscretions, to the catarrhal condition of the intestinal mucous membrane, or to slight intestinal ulceration, an intravenous injection of 5 mils of a 5-percent solution of calcium chloride will give prompt relief. When, however, the intestinal symptoms are due to extensive ulcerations—especially to amyloid infiltration—the chances of attaining relief of the pain and annoying diarrhea are remote. Similarly, when the abdominal pains are due to irritation of the intestinal mucous membrane by the contents of the intestine, relief may be attained by intravenous injection of calcium chloride. When, however, the pains are due to localized peritonitis over deep intestinal ulcers, or to peritoneal adhesions, which are not uncommon in tuberculous subjects, calcium chloride is impotent to give relief."

He states that his observation of the action of calcium chloride in diarrhea of the tuberculous "warrants its recommendation as a valuable agent in the treatment of this condition." Since the publication of Doc-

tor Fishberg's report, I have applied this method in one case of intestinal tuberculosis, with the result that the diarrhea and pain were promptly relieved and apparent cure has been obtained.

As to Bacterins

It is my judgment that vaccines can, and do, play an important role in the prevention of mixed infection and are of very great importance in the protection of patients against the common-cold or influenza infections. It has been my practice to administer immunizing doses of vaccine during our winter months to all tuberculous patients under treatment and especially to all apparently-cured patients. It is not enough to cure patients of tuberculosis; we must protect them against relapses in the winter months. Nearly all these relapses are ushered in with acute colds and if, by immunizing patients against common-cold infections, we can protect them against relapses, we certainly render them a very great service. In this connection, there comes the suggestion that immunization against common-cold or influenza infection may be found the greatest preventive of tuberculosis. We all must agree that most people are infected with latent tuberculosis, and it is a common observation to note that most cases of acute tuberculosis have been brought into activity by the mixed infections of common colds, which, as a rule, have their beginnings in the upper air passages.

Attention to Digestive Organs

Digestion and assimilation of food is of utmost importance, and indigestion is such an early and persistent symptom in tuberculous disease, that we must always be mindful of its presence and institute those measures that will promote efficient digestion. Patients should not eat except at regular meal times, they should be ordered to lie down for an hour after each meal, preferably upon the right side so as to favor the early and complete emptying of the stomach by taking advantage of gravity. It seems that most tuberculous patients have more difficulty in digesting starchy foods than proteids. If that can be ascertained, we can greatly improve digestion by the administration of some of the starch-splitting ferment such as, diastase, pankreatin, and others. Regular and complete evacuation of the bowels is essential to good digestion, and care must be given to

this. A mild laxative at night is usually all that is needed.

Control of Cough

Few drugs are needed for the treatment of cough. Most patients can be trained to control their cough. A great deal of coughing is due to the irritation of the nerve-endings of the recurrent laryngeal nerve. Frequent use of carbolic-acid solution as a gargle or spray is of much value in controlling cough and, used in the proportion of one drachm to a pint of water, it serves not only to allay the coughing by anesthetizing the laryngeal mucous membrane, but, also, acts as a good antiseptic for these parts.

Value of Occupation

No discussion of the therapy of tuberculosis is complete without giving thought to the part which psychology plays in this disease. It has been a common observation from time out of mind that consumptives

are ever hopeful of ultimately getting well. While this may be true, this disease usually runs a long and tiring course and patients have a great deal of unoccupied time on their hands, so, we must see to it that this time is not misspent. I believe that we have made a mistake in the past by permitting our patients to read many books and other literature upon the subject of their malady. While much of this reading might be helpful, many cannot understand what they have read and it not only confuses them but makes them introspective. They should be encouraged to develop an interest in some useful and entertaining pastime. All of them have some talent that can be employed to occupy their time. An unusual example of the development of these talents was shown by Robert Louis Stevenson, who did nearly all of his writing while suffering from pulmonary tuberculosis.

The Yellowstone National Park for Your Summer Outing

By CHAS. S. MOODY, M. D., Menan, Idaho

ARE you looking for some place to go this summer? About every so often, the average physician gets tired of the noise and confusion of his city life, the plaints of ailing women and the crying of puling infants, and wants to bunch the whole blamed thing and get himself away off in the backwoods, away from telegraphs, telephones, daily papers and all the omnium gatherum of civilization, off where the Red Gods play, where the trout leap in the dashing water, where the grouse hoot on the pine-clad hills.

If you are one of the dilettantes in love with summer hotels and the effete comforts of Palm Beach, you need not come to me for advice, for, I am incapable of giving it; but, if you want to know something about Nature just as the God of Nature carved it out, I can qualify as adviser emeritus. I have been there. Ask Burdick if I have not. Just put me next to the kind of a time you are looking for and I will undertake to be your guide, mentor and friend to see that you get what you want. I think, it goes without saying, that somewhere in the

great northwest lies the land of your dreams. It must, for, there are all kinds of lands there, and a man must be an epicure, indeed, that cannot find something to his liking.

Yellowstone National Park

Perhaps, you have never visited the great Yellowstone National Park, that superb playground set aside by your indulgent uncle for your enjoyment. There are just a few things in connection with a Park trip that I would call your attention to. The first is, do not rush through. Far too many people visit this wonderland and allot themselves a few days in which to see it, then come away with a confused idea of the thing. The geysers are wonderful, the boiling mud springs curious, but, after a short time, you get fed up on these things and they lose their charm. If you are going merely to see natural phenomena, then go to the Upper Geyser Basin and look at Old Faithful for half an hour and go back whence you came. However, if you really are in love with Nature in her wildest moods, spend ten days or two weeks rambling around and drinking

your fill of the grandest and wildest scenery on earth.

Do not indulge in one of the cut-and-dried tours. If you do not take your own car through the Park, hire a man with a pack outfit, at so much per day or week, to take you through, and then take your time.

My own personal choice is to enter the Park from the south entrance. I should make a sojourn of at least three days at Jackson Lake and snag a few of the great river trout that are kept on tap in the Snake River all the year round. I'd eat my fill of the excellent meals served to hungry travelers in the hotel at Moran, and sleep the sleep of the good under the silent stars with the roar of the falls as a lullaby. I'd leave there on some bright morning and wend my way up through the towering pines beneath the shadows of the Tetons, stop at the Park entrance and contribute \$7.50 to the officer in charge of the military station there, have him seal my shooting irons against depredations on Uncle Sam's pet game, then roll into the Park over the smooth gravel road, "the world forgetting, by the world forgot." Methinks, I should noon at Yellowstone Lake and, mayhap, cast an inquiring fly into a crystal-clear water just where the bridge crosses a neck of the lake. That night, I should encamp at the rapids on the Yellowstone and fish, and fish, and fish until darkness overtook me and drove me to camp. Ye Gods! what trout there are at the rapids on the Yellowstone! Great brown fellows lie in the still water behind the rocks and attack a fly furiously.

Personally, I don't care so much for geysers, the great falls of the Yellowstone attract me more. Go down the steep trail leading from the canyon rim to the foot of the falls and gaze upward at the immense column of water plunging sheer for over two hundred feet, touched by the rays of the westering sun into all the colors of the spectrum, falling into a deep emerald-green pool replete with gigantic trout. Gaze your fill at the color scheme of the towering canyon walls, then unlimber your fly rod and spend the last hours of daylight in the art Waltonian.

It would be impossible for me to tell you all the beauties of Yellowstone, you must go yourself and see. The journey to Mount

Washburn is an education in itself. There, one stands upon the very backbone of the North American continent and looks down upon a wonder world stretched at his feet. Eleven thousand feet above sea level, with a vast panorama of hill and valley spread out at his feet, mountain and hill, valley and stream, lake and forest in endless vista as far as the eye can reach. Then wind back down the mountain and pull across Dunraven Pass, slide down the miles and miles of smooth road, the car running by gravity alone, to camp that night on Tower Creek on the meadows there. Of all the lovely camping places on earth, Tower Creek is the loveliest, a great upland meadow covered knee-deep with sego lily, tiger lily, dog's tooth violet, Indian paint and numberless other blossoming flowers, with a clear cold stream coursing down the valley.

This is the point, too, where you are most apt to see the wild things in their native simplicity. Great lumbering bears will come to your camp and silently beg to be fed, immense elk with wide-spreading antlers feed unmolested among the campers, graceful deer come down to water almost within reach of your hand; now and then a shaggy bison bull will stray into camp, while the smaller animals and the birds are almost a nuisance. On beholding these things, there becomes apparent the wisdom of sealing your shooting tools at the Park entrance.

The next day brings you to the Mammoth Hot Springs and Fort Yellowstone at the north entrance to the Park. Here are the boiling caldrons of superheated water pouring over the rim of the hill, forming many colored terraces of limped pools of green water. Here is the Devil's Kitchen where his Satanic Majesty is supposed to perform his culinary operations. You may descend into this gash in the solid granite, and, if your courage holds out, trace it for hundreds of yards back into the hill, all the time getting hotter and hotter, until you reach a place where you can imagine that you almost hear the shrieks of the damned as they fry on the coals. Then you turn back and seek the cool refreshing upper air.

The next day (for, you will not care to spend more than one here), you turn south and cross the Divide again descending the Gibbon river to where it and the Fire Hole come together to form the Madison. It is

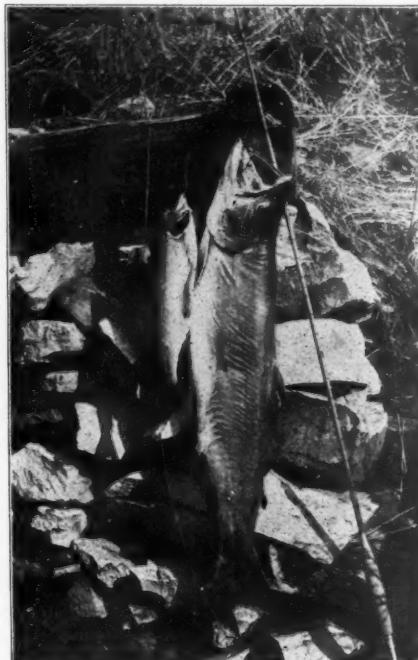
a lovely drive down the Gibbon into the Norris Geyser Basin, and it is in the Norris that you are introduced to geysers proper. Big geysers, little geysers and geysers of medium size, all spread out on a level flat for you to inspect. Some of them play all the time, some only occasionally. A few are rather coy and lucky is the traveler that chances to see them at their performances. Personally, it was my fate to see the Mammoth play the first time in years. Make your camp at the genesis of the Madison, for, there you can, if you are a lover of the angle, find wherewith to surfeit your desires. In the Fire Hole, you find thousands of lively little brook trout, a hundred yards away in the Gibbon great husky Rainbows and further down in the Madison still huskier Loch Leven. To my mind, the Upper Geyser Basin is the acme of all that one goes to the Park to see. Here is the famous Old Faithful and, if the traveler has failed to see a geyser in play before, he has only to wait fifty-five minutes at most and Old Faithful will accommodate him. First, a gurgle like the expiring gasp of some expiring Cyclops, then jets of steam come shooting from the caldron, then a preliminary spurt of boiling hot water which seems to be sucked back into the bowels of the earth. Then, when all is in readiness, a beautiful column, four feet in diameter, shoots straight into the air nearly two hundred feet and hangs there suspended for several minutes to be drawn back to its home in the depths to reappear in less than an hour.

It is at Upper Geyser Basin, too, where you will have an opportunity to study bruin at his best. The camp ground is simply infested with great black and brown fellows with here and there a grizzly, all so tame that the children chase them out of the camp with sticks. Where the garbage is dumped from the hotels, just at sunset, one can sit at his leisure and watch hundreds of bears.

So much for the Yellowstone National Park. If you have never visited it, it is your duty as a patriotic American to do so. Take along your own outfit and eschew the palatial hotels kept only for the effete rich, places where you must own a dress suit and the money bags of Croesus to be considered in the swim.

It may be, though, that you are not especially interested in boiling springs and fall-

ing water. In that event, I shall have to introduce you to lake Pend Oreille, which, by the way, is pronounced as though it were spelled Ponderay. Of all the interesting show places, unspoiled by civilization, in Idaho, this is the showiest. Lake Pend Oreille is reached by three transcontinental lines of railway, so that there is no excuse for you not getting there if you want a place to camp this summer and "soak your soul over, hub and spoke," in a real human's country. I guess, in order to prove some of the assertions I am liable to make



No need to invent "fish stories" where such beauties are caught.

regarding the sport in this water, I had better submit Exhibit A for the defendant. Here it is; the two fish are photographed side by side for comparison. The little infant you see on the right weighs a little over six pounds, while the full-grown specimen tipped the scales, three hours after he left his native element, at exactly 31 pounds 4 ounces. Let me assure you, dear doctor, that this was by no means the last of his race and, if you follow directions, it is altogether likely that you may snag his com-

petitor or one of his descendants. You'll enjoy fishing on lake Pend Oreille, especially if you can coax Dr. Floyd G. Wendle to go along with you, and, let me whisper, Wendle isn't hard to coax. The great lake is filled with trout and its streams are, likewise. Again, I must request that you ask Burdick, not that Burdick caught a great many, but he can give *ex parte* evidence as to their presence.

How to get there. Go to Sandpoint or Hope, get the Northern Navigation steamer to land you at any one of several hundred camping places about the lake, set your tent up alongside some mountain stream beneath the shade of a towering yellow pine, then simply relax and let the world roll by. Sixty-nine miles of clear blue water, deep as the sea, surrounded by lofty mountains, the water bedecked with emerald isles: If there is, in all this broad land of ours, a more delightful place to spend a summer vacation, I have not yet run across it.

Now, it may be possible that you, like myself, are a devotee of the festive mallard, and, so, I have reserved that for the last, for, I promise myself the pleasure of leading you to the finest duck shooting on top of old Mother Earth. If there is any one reason more than another why I am marooned here in the sage brush, it is because Dr. Earl D. Jones introduced me to the ducks on Crystal Lake. If you will solemnly promise, on your word of honor, as a man and physician, that you will not attempt to usurp our prerogatives as disciples of the art curative in either Roberts or Menan, either one or both of us, will load you and your duffel into a perfectly reliable car, shoot you out across miles and miles of level mesa to where Crystal Lake nestles in her cup of circling hills, and let you warm up the old scatter gun on the myriads of ducks that make their home there.

Crystal Lake is the place where the devout mallard (if there are devout mallards) prays that he may go when life's fitful fever is o'er. It lies thirty miles westward

from Roberts, Idaho, and stretches, miles upon miles of shallow reed grown water with tiny islets scattered over it. It is the great breeding ground for the northwest ducks and they congregate here in countless numbers. You have often heard the expression "the air black with ducks," but, perhaps, have imagined it simply a figure of speech. On the opening day, when the first gun is fired, the air becomes literally black with ducks. If you love Nature, the thing I promise you most is, watching the sun rise of the Three Tetons. Away off to the east, these lofty peaks rear their snowclad heads, landmarks seen for hundreds of miles every way, and nowhere can they be seen to better advantage than from the reddy shallows of Crystal Lake. The first chirp of the Tule Wren rouses you from slumber, the deep black of night is just giving place to the gray of coming day when you don your waders, shoulder your gun and head for the marsh. You startle the still sleeping ducks with every step, until at length you are sitting on some musk rat house out in the water, waiting for it to get light enough to shoot. Now look off to the east, the range is a dark blur on the horizon, like a mass of storm cloud; gradually you make out three dark bodies rising out of the gloom, slowly these are lighted by the coming sun until they stand silhouetted against the reddening sky behind. Slowly the light grows stronger, throwing red beams athwart the rugged old peaks. At length the Sun God rolls above the horizon bar and the three pinnacles burst into glory. About this time, some ambitious Nimrod fires a gun off in the distances and the roar that comes from the water is like the rushing of a mighty wind. Ducks everywhere, above one, on every side, they come hurtling down the lake in clouds. You forget the Tetons and all else in your mad scramble to get your share. Two hours is all that you need on the marsh; then wade back to camp, hot cakes and coffee.



A Case of Indolent Ulcer of the Leg— Appendicitis in the Wilderness

By J. H. LOWREY, M. D., Neola, Iowa

TIME is passing swiftly. It is now five years since my last trip to northern British Columbia. A remarkable experience it was. We could find no one at Quesnelle, on the upper Fraser, who knew the country or had been over the trail north leading to the Nechacko or who could give us an intelligent description of what lay north, so, I had to feel my way. I boarded a boat going up the Fraser, because I was informed that a couple of Americans had located on land just north of the Blackwater and they shoved me off the boat, that night, at about 10 o'clock, a couple of hundred yards from their cabin. These boys had never heard of me and did not know of my coming. The shrieks of the boat's whistle woke them up, they knew the call, and Bill Montgomery came down towards the landing where the boat was moored. The captain yelled to him that a stranger had gotten off the boat and indicated the direction where I was climbing a steep bluff. He came to meet me. When I introduced myself and told him my mission, he cordially invited me to his cabin, where I met his partner, Irwin Green. Both were Missouri boys who had delved into the wilderness to carve out a home. I requisitioned a couch for that night. The next day, I made a lone quest for bear and, the following morning, Bill and I loaded his team and equipment on a down-going boat and, by evening, we were in Quesnelle. There, we outfitted our camp equipment and supplies for the north.

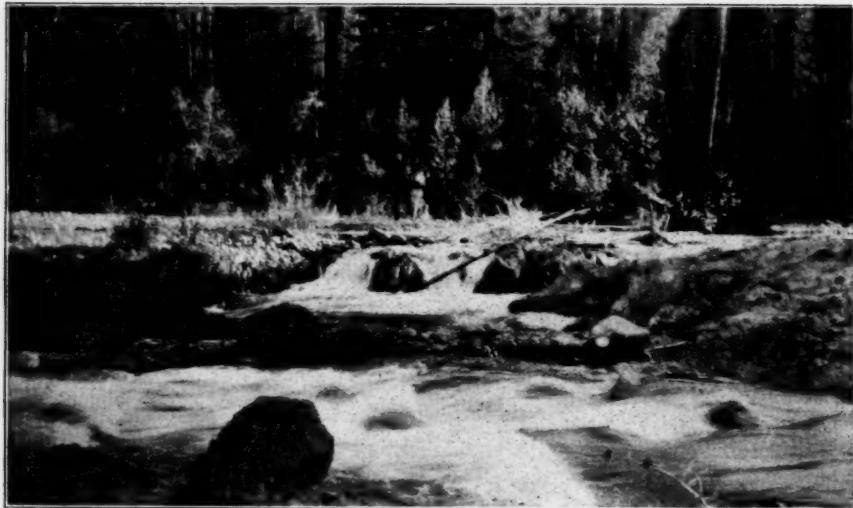
The second day, we started bright and early over the Dawson trail. We ran onto the first automobile making for Stewart Lake and Prince Rupert, the first auto that ever hit the trail in that direction. It was an E. M. F. We had to haul their supplies for them, going up the long mountain grades, or they would never have gotten through. After we reached the Mountain summit, the roads were dry. They

then, reloaded their supplies and repairs and left us in the rear. I have often wondered how they fared, all inexperienced in pioneer travel. That night, that is to say, the second night, we came to a great marsh, 5 to 8 miles wide and 30 to 40 miles in length, alternating in lakes and marshes. There were, not millions, but, billions of winged game there of every description. Just about dusk, we were



Mountain freight wagons at Ashcroft. They convey freight to the north country.

seeking a camping place when, suddenly, there loomed before us, a huge grizzly bear meandering complacently down the primitive roadway and making no great haste either. Bill and I quickly leaped out of our mountain stage and made for him. I had a 30-30 Marlin and he 30-32 Winchester. He was three hundred yards away, but, we were gaining on him and, owing to the dusky shade in the heavy timber, it was necessary to get as near as possible, to make our shots accurate. Suddenly, the bear went down a ravine, to sip at a big spring, when a crippled horse, that some freighter had turned loose, at the sight of the bear went up the bank on three legs, the cow bell hung on his neck, making a H-1 of a racket, and, down the lane he went. This frightened Mr. Bear; he broke for the thicket—and we missed him. I have often wished that I had



The only photograph ever taken of several cataracts of the upper Blackwater, a wonderful stream for spreckled trout.

jumped to one side and opened up on him because I am some range-shot, believe me.

Well we moseyed on, along the roadway skirting this great marsh, the adjoining valley looking very much like a great natural park, with mammoth trees from one to three-hundred feet in height. A couple miles beyond, we came to a cabin, nestled in the wilderness and within a gun shot of the lake. A man, who proved to be an old Boer soldier, came out to greet us. I asked him what show there was for us to sleep inside that night, as the nights were chilly and he said: "None. You wouldn't schleep any way," said he. I asked him why? "Dare was a sick man. mit de be'ly-ache, yellin' like hell. Listen—you hear? I no schleep for tree nights. I vish he eider get vell or die or by golly I die." I told him that I was a Doctor and I might be able to help him. "Vat, you a Doctor?" he exclaimed. "Sure, although my appearance might belie it." "Vell, for God's sake, just go into de cabin and do somtings for dat man by golly, I schleep in de barn."

I found a young man, lying on a ponchon bed, moaning his every breath; his brother sitting near him in the dimly lighted room. They seemingly paid no attention to me, as I entered. Opening my large valise, I got out my towels and soap and scrubbed

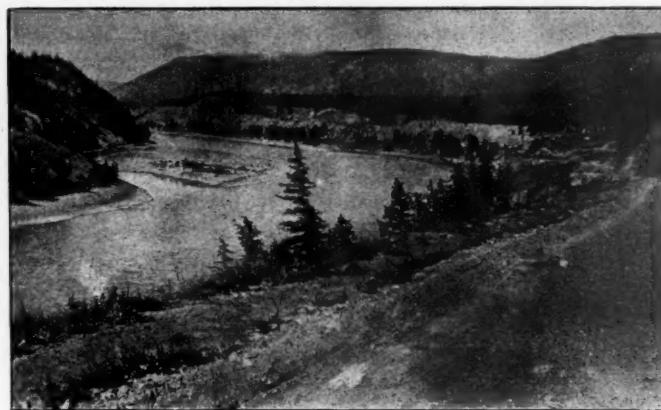
up, then washed my thermometer and stepped over to the sick man and proceeded to take his temperature. A queer, quizzical look, that fellow had on his face whilst I was taking an inventory of his symptoms. He was mentally trying to solve who I was and how I happened to be there, and never for a moment did he take his eyes off me. Throwing back the covers, I examined his "belly" and found that he had a typical case of appendicitis. His temperature was $103\frac{1}{2}$ °F. The abdominal muscles on the right side were very rigid and the tenderness pronounced. "Young man," said I, "you have appendicitis." "Are you a Doctor?" he queried. "I am," I answered. "How, in the name of God, do you happen to be up in this God forsaken country? I have prayed for help these last two days. Give me something to ease this awful pain." I gave him a shot of hyoscine and morphine with cactin, applied an ice cap over his appendical region, got out my fountain syringe and emptied his colon. Then I gave him a dose of aconitine, digitalin, strychnine, and bryonia and, by morning, I had his temperature normal. He remained at this cabin until our return and, then, the two brothers joined us on our journey south.

There is a stream, called Deer Creek, 15 miles north of Quesnelle, where camp

usually is made by inland travelers. We camped there. This water, though tasting fine and icy cold is strongly charged with lithia. It certainly worked our kidneys overtime. Taking auto at Quesnelle, I came back over the Cariboo road and, the second night, stopped at the big ranch of John B. M.

This gentleman is certainly a prince of a fellow. After supper, he requested me to remain, after the other guests had retired. He then summoned his wife who, for three years, had been afflicted with a large, indolent, varicose ulcer on her left limb which was swollen a third larger than the normal limb. He explained that he had sent her to Vancouver, for three consecutive summers and, during that time, she had been under the care of six different Doctors all of whom failed to even benefit

other cases of like character. I could not get the drugs at Calgary or Winnipeg, however, so, sent the medicines from here. And this is what I prescribed: Chlorate of potash, 2 drs. to 8 ounces of water. A pledge of aseptic gauze, saturated with



Birdseye view of a position of the upper Fraser river. Cariboo road on the right bank in the canyon.

this solution, was ordered to be applied until the ulcer bleached out, then, the following dusting powder was to be applied in daytime:

Powd. camphor	1 dr.
Powd. acetanilid	1 dr.
Subgallate of bismuth.....	1 dr.
Urotropin	2 drs.
Powd. boracic acid.....	2 drs.
Compound Stearate of Zinc (McKesson & Robbins)	½ oz.

Mix. Sig.: Dust on ulcer freely during the day and, at night, apply the Scarlet-Red ointment, which I mailed them.

I also sent them a supply of bichloride-antiseptic tablets, with which to bathe the hands of the person who made the application; warning them that the ulcer wou'd not heal unless it were kept aseptic. Six weeks after the treatment was instituted, the ulcer had healed completely and the complimentary letter I received from this appreciative gentleman, I treasure very highly.



First auto going through northern British Columbia to Prince Rupert.

her. He thought that an American physician might know of some medicine that might help her. I replied that I was certain I could cure her, as I had cured many



Scarlatina

By HYMAN I. GOLDSTEIN, M. D., Camden, New Jersey

[Concluded from June issue, p. 402]

Treatment

AVOID meddlesome treatment, avoid overtreatment.

Nose and Throat.—Salt solution is the simplest and most efficient cleansing agent for the nose and throat. Liquor antisepticus alkalinus may also be used, with a nasal douche, every two or three hours. An ice bag, constantly applied over the throat, gives relief. Avoid strong, irritating, unpleasant throat-gargling solutions.

Blood Serum.—Blood serum from recovered cases of scarlatina has been used with excellent results. An easy and practical way is, to withdraw a few ounces (4 or 5 or 8 ounces) of the blood from the donor and immediately inject the whole blood into the gluteal region of the patient. (Citrate solution is first drawn through the Luer syringe.) This blood is soon absorbed and the dangers of intravenous injection and marked anaphylactic reactions are thus avoided. It is important to know that the donor is not syphilitic.

Rest and Fresh Air.—The patient should be kept in bed, even in the mildest cases. He is not to be covered too heavily. Plenty of fresh air and thorough ventilation are most important. The temperature of the room should be kept at about 65 to 70 degrees F. (23 degrees C.). Avoid exposure to drafts. The patient should be kept in bed for a week, if possible, after the subsidence of the active febrile stage. In this way, only, can the danger of late renal complication be avoided, while daily examination of the urine is the only guide as to just what changes may be taking place. The 'phthalein renal-function test may be tried.

Skin.—Throughout the course of the disease, a tepid sponge-bath should be given once or twice a day. These sponge-baths diminish the tension of the skin and aid in skin elimination besides being extremely grateful to the patient. For the itching and, later, for the desquamation, cold-cream or cacao-butter or a mixture of lanolin, vaselin and olive oil with a little phenol (1 or 2 percent) may be used. Menthol

($\frac{1}{2}$ percent) may also be added for the relief of the itching.

Specific Treatment not yet Available

Unfortunately, there is as yet no specific treatment for scarlatina. Huber and Blumenthal reported, in the *Berliner klinische Wochenschrift* (No. 31, 1897, pp. 671 *et seq.*) on the use of serum from the blood of convalescent scarlatinal cases, with varying results (in a series of 13 cases). E. M. Landis (*Jour. Amer. Med. Assoc.*, April 8, 1899) reported a striking case of recovery following the use of anti-streptococccic serum.

A. Babinsky (*Berliner klin. Woch.* 1896, No. 33, pp. 340 *et seq.*) reported a series of 48 cases of scarlet fever, treated with Marmorek's antistreptococccic serum with a mortality of 14.6 percent.

Antistreptococccic serum and streptococccic vaccines may, theoretically at least, be of real value in all cases of scarlatina complicated by streptococccic angina, ear infection and abscesses. In these latter, a mixed staphylostreptococccal serobacterin may be tried.

In all septic cases and in cases threatened with uremia, the use, subcutaneously and, even, intravenously, of large amounts of sterile physiologic-salt solution has been advised by Forchheimer, E. P. Carter and others. The object is, to dilute the circulating poison and to supply a mechanical aid to diuresis and elimination of toxins. It is possible that, in the severe toxic cases, much might be gained by such measures if they are adopted early.

In the vast majority of cases with slight sore throat, little fever, and only mild constitutional symptoms, the proper treatment is, isolation, rest in bed, diet and nursing, local care of the nasopharynx and skin, and the administration of an alkaline mixture as follows:

Sodii Citratis	3 drs.
Syrupi	4 fl.-drs.
Liq. Ammon. acetatis	
Liq. Potassii Citratis \ddot{a} q s.....	4 oz.
M. sig. teaspoonful in sweetened water,	
every two or three hours.	

Fever.—In reference to the use of antipyretic drugs, Osler has properly stated

that "medicinal antipyretics are not of much service in comparison with cold water."

Osler, Henoch, Moizard, Steffen, Currie, von Jürgensen, Jacobi, Carter and many others have recommended cool or tepid sponge-baths as the best means, the safest and most reliable method we have for reducing the temperature in scarlatina.

Bowels.—Mild saline laxatives or small fractional doses of calomel followed by an evacuating enema.

Stimulation.—When the pulse is weak, soft and of low tension, digitan or digipuratum, or digalen, or digifoline may be used. As soon as the first sound of the heart becomes weak, or the heart sounds lose their normal tone and any threatening change is noted in the pulse, stimulation should, and must, be resorted to and insisted upon. Brandy or whisky, in suitable doses, may be given cautiously. Strychnine, 1/100 grain (0.00065 Gram) in small doses with or without iron may be given. Camphor, 1 to 3 grs. (0.064-0.2 Gram), hypodermically or caffeine sodium-benzoate are of the greatest value in this condition. Sometimes, especially if the cardiac weakness is associated with marked restlessness, delirium, and grave toxic symptoms, very small doses of morphine, as recommended by Jacobi, seem efficient, together with bromides and hot baths. Musk, if obtainable, can be tried in doses of 1/2 to 3 grains (0.032-0.2 Gram).

All my patients receive alkaline enteroclysis. Bicarbonate-of-sodium solution is given by rectum in all cases, together with alkaline drinks by mouth. Plenty of orange juice, lemonade and water, milk, buttermilk, ice cream, orange-albumin, kalak water, and Vichy, are allowed.

Other complications, such as, earache (otitis), lymphadenitis, severe anginal complication, arthritis, endocarditis, pericarditis, bronchitis, pneumonia, pleurisy, stomatitis, gastroenteritis, diarrhea, and nephritis—all require attention and treatment as in any other infectious disease.

It is unnecessary to go into details in the treatment of these complications, in a paper of this kind. Diphtheria may be a complicating infection in scarlatina and, when it does occur, as shown by positive throat cultures of Klebs-Loeffler bacilli,

diphtheria antitoxin should immediately be injected and the heart stimulated.

As to Drugs*

I do not believe that either belladonna or arsenic have any protective powers against scarlatina. Illingworth suggested that biniiodide of mercury would cut short an attack and cause the rash to disappear rapidly. Mehary believed that salicin had some abortive power. Chlorate of potassium should not be used in scarlatina. Very often, I have found warm tub baths to relieve nervousness and restlessness and to reduce the temperature one or two degrees, very promptly. Sponging (continued for ten minutes) with warm water (90°F.), with or without alcohol, may be substituted for the bath. Water should be applied freely and, if necessary, cooler water (70°-80°F.) may be used. A good reaction should be obtained; the patient must not get blue or remain cold.

Moser reported excellent results from a polyvalent antistreptococcal serum. The serum may be used against the septic manifestations. Its early use may be of value in protecting patients against subsequent streptococcal infections and serious complications may be avoided.

McCollom has recommended insufflations of calomel, instead of irrigations, for the nasopharynx.

R. Koch reports excellent results, in the treatment of scarlet fever, with intravenous injection of 100 mils of serum taken from convalescents, that is, at about the third week of the disease. Among 280 patients with extremely severe scarlet fever, only one died and this was a child who was moribund when first seen, dying in an hour. Convalescent and normal serum acts alike, but, the former is more powerful. It requires 50 mils for very young children and 100 mils for older ones; it is better to mix the serums of several convalescents. The serum treatment is most efficient during the early stages of the disease. Koch regards it as an almost absolutely certain weapon during the early stages of the disease, if given intravenously and in sufficient doses.

A. Zingher, New York City, treated scarlatina with fresh blood from conva-

*Calcium sulphide to saturation has been praised highly by many physicians of wide experience, in the preventive and curative treatment of scarlet fever as well as of other infectious diseases, notably diphtheria and smallpox.—Ed.

lescent patients. He injected directly or first citrated by adding 1 mil of a 10 percent-sodium-citrate-solution to 1 ounce of whole blood, making the final dilution of the citrate 0.33 percent. 4 ounces can easily be injected in a young child and 8 ounces into an older child. He reported on treating fourteen toxic cases in this way. The majority of the patients were very toxic and often delirious.

Gabritschewsky, in 1905, introduced the use of streptococcal vaccine (cocci from cases of scarlatina) for preventive inoculation and this was used quite extensively in Russia.

R. M. Smith concludes that Gabritschewsky's vaccines do appear to have some influence in controlling epidemics of scarlatina and that they should be tried.

Watters tried this preventive inoculation on twenty-one nurses who had not had scarlet fever previously.

Reiss and Hertz used the mixed serum from several scarlatina cases (convalescent), injecting it intravenously in large doses. They believe in its preeminent efficacy and as actually life-saving in many cases. The dose is, 50 mils for children and 100 mils for adults. Injections must be commenced before the fourth or fifth day, in order to be promptly effectual. Normal serum seemed entirely impotent. They took the serum from convalescents between the eighteenth and twenty-fourth days, after negative Wassermann tests and excluding tuberculosis and septic cases.

Meltzer and Auer, and Morgenroth and Levy have shown that absorption from muscular tissue occurs very much faster than it does from subcutaneous tissue. In fact, the rapidity of action of substances, so injected, approximates very closely that following an intravenous injection. Twenty-three patients were treated at the Willard Parker Hospital with intramuscular injections of blood. Distinctly bene-

ficial results were noted in the very severe cases by Abraham Zingher.

D. MacIntyre treated septic scarlet-fever cases in the acute stages with autogenous streptococcal vaccine. All patients recovered. John A. Kolmer does not think that streptococcal immunization has any value as a prophylactic measure against scarlatina.

Epinephrine, in 10- to 20-drop doses, by mouth, was used by Paoloantonio, in nephritis cases of scarlatina, while, in urgent cases with hematuria, he gave it subcutaneously.

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The Socalled Interstitial-Gland Implantation

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THE subject of implantation, or transplantation, of socalled "interstitial glands"—which is an euphemism for the testicle—has received so much publicity, and there has been so much discussion as to whom credit for the pioneer work is due, that I feel it is incumbent upon me to briefly present the history of the operation.

The first operation was done with material taken from a dead body on January 16, 1914. The operation was done by myself and upon myself. The donor of the gland (the entire testicle) was an apparently healthy subject, 18 years of age, dead 17 hours. The material was kept in physiologic saline solution for seven hours prior to implantation. The operation was performed with the assistance of my then associate, Dr. Carl Michel, now in the Public Health Service in San Juan, Porto Rico. Local anesthesia was employed. On the eighth day, half the implanted tissue was removed and found to be covered with an abundance of new blood vessels. The remainder of the gland was allowed to remain *in situ*. Microscopic examination of the removed tissue showed that new blood vessels had formed within the substance of the gland. The half of the gland which was allowed to remain was gradually absorbed but did not entirely disappear until about the end of the year, during which time I had abundant opportunities to note the physiologic effects.

Since the operation described in the foregoing, I have performed a large number of implantations upon both sexes, in all of which I have made careful observations of what I believe to be the effects of internal secretion of the sex glands upon the human body. The more important of my conclusions are as follows:

Results of Implantation

1. Therapeutically successful total or partial implantation of human reproductive glands, in both male and female, is prac-

ticable. So long as a vestige of the implanted glands remains, hormone is formed and absorbed, producing effects that endure even after complete absorption has occurred.

2. Glands taken from a healthy dead body, at any reasonable time prior to the beginning of decomposition, are suitable material and, if implantation succeeds, are of therapeutic value equal to those taken from the living body.

3. The hormone of the glands in question is stimulant, nutrient, tonic and reconstructive, and should be beneficial in many forms of chronic disease.

4. The development of senility can be retarded and longevity probably increased by hormones administered by gland implantation. In one case, the previously gray hair upon the arms and breast and the almost entirely gray eye-brows and beard became noticeably darker within a few weeks.

5. Gland implantation is of marked benefit in cases of defective sex development of various kinds.

6. It apparently is valuable in certain obstinate forms of chronic skin disease, notably in psoriasis.

7. It appears to be of great value in arteriosclerosis when this is not too far advanced.

8. Thus far, it has been very effective in anemia.

9. Gland implantation is quite uniformly effective in increasing physiologic efficiency with all the benefits accruing therefrom.

10. Several patients coming under my observation and submitting to gland implantation have experienced apparently extraordinary results, notably several cases of imperfect sex development with feminine attributes, in the male, and in cases where the subject had been rendered thoroughly inefficient in every way, as a result of injury or disease.

11. It is not necessary that the implant-

ed gland should remain permanently in order to secure beneficial results.

Priority of Author's Work

My first series of articles upon the subject appeared in the *New York Medical Journal* for October 17, 24, and 31, and November 7, 1914. In this series of papers, I presented extensive studies and micro-photographs of sections taken from implanted glands which had been removed, afterwards, for study. Some of my most remarkable sections and photographs were taken from a male gland removed 30 hours after the death of the donor, refrigerated for four days and implanted upon the body of an insane female, 60 years of age. At the end of four months and nine days, the implanted gland was removed and the microscopic sections plainly showed the remnants of secreting tubules with an abundance of new blood vessels, and an abundant proliferation of the hormone-producing interstitial cells, or cells of Leydig.

At about this time, I performed some experiments upon fowls. The implanted glands, in several instances, were subsequently removed, sections made and micro-photographs taken. My book on "Sex-Gland Implantation," published in 1917, contains a series of 25 microphotographs of sections taken from glands which had been implanted and removed, besides photographs of gross specimens, of implanted and removed glands, and of implanted glands *in situ*.

The announcement of my experiments appeared in the *Bulletin of the Chicago Medical Society* for March 7, 1914, and, at various times within the past few years, I have published clinical reports in the *Journal of the American Medical Association*.

As to Voronoff's Claims

Apropos of the claims of Voronoff, of Paris, I wish to observe:

1. Voronoff's name does not appear in the practically complete bibliography on gland implantation which I published in 1914, which bibliography included every bit of work bearing, even collaterally, upon my experiments, that I could find.

2. I never heard the gentleman's name, until it appeared in the public press of this country, and am not aware that he has at

any time published any observations upon gland implantation in a dignified manner in the medical press.

3. It is a self-evident proposition that Doctor Voronoff is more mindful of the publication of scientific matters in the secular press than he is of such matters appearing through professional channels. He was especially quick to note in the public press that Dr. L. L. Stanley, of San Quentin prison, California, had performed ten gland implantations. Voronoff showed lively interest in this work, by sending a cablegram to Doctor Stanley, congratulating him upon his success with his, Voronoff's, (*sic!*) method. As Doctor Stanley promptly replied through the medium of the United Press to the effect that the method, which he was using, was that of Doctor Lydston, of Chicago, who had performed the operation nearly six years ago, it would seem that Voronoff's congratulations fell rather flat.

As I write, I have before me a telegram received from Doctor Stanley, October 19, 1919, in which he states as follows:

"My ten cases of gland transplantation were done according to your technic and after close study of your book and reports in the *Journal of the American Medical Association*. No originality was claimed by me. In my only interview to the *San Francisco Bulletin*, Tuesday, and in interviews of my assistant, full credit was given you. I pointed out that Voronoff was far behind the times and that you had long preceded him. With my permission, you reported my first case. I suggest that you give this telegram to the papers."

There also lie before me the official prison records and hospital chart of the first case operated by Doctor Stanley about two years ago, with the correspondence between Doctor Stanley and myself relative to the case. The patient was operated upon by my method, and I myself published it, giving Doctor Stanley due credit, in the *Journal of the American Medical Association* for May 31, 1919.

It gives me great pleasure to express my appreciation of Doctor Stanley's efforts in following up my gland implantation work according to my methods. His efforts to give credit to whom credit was due cannot be too highly commended and I take this way of personally thanking him.

Making Your Practice Pay

By GEORGE H. CANDLER, M. D., Chicago, Illinois

SOme of the most pretentious—and popular—articles on "How to Succeed" have been written by men who had failed to "arrive," themselves, and the individuals most inclined to tell one just how anything should be done—from hanging wallpaper to making a fortune out of chickens—usually are harmless but rather helpless creatures who have had to be boosted over every rough spot on life's road.

It is, therefore, with extreme hesitancy and a shrinking spirit that I am attempting to comply with the Editor-in-Chief's request to write something on "Making Your Practice Pay." In the first place, I don't know *you*; in the second, I don't know just what kind of people you are practicing, or desire to practice, among; and, in the third, I haven't any idea what you would consider a "paying practice."

Selecting a Location

Any number of men, after acquiring their education and the legal right to assuage the physical ills of mankind, as presented within a certain limited territory, locate without any very definite aim wherever they can find an opening and, too frequently, as the years pass, find themselves following a very shallow and ever-narrowing rut, which leads nowhere in particular and passes through decidedly unfruitful and unattractive territory.

Others, again, aim high, attempt to compel success to attend them from the first, and, sooner or later, fail by the wayside discouraged and convinced that any other occupation is to be preferred to the practice of medicine.

The Real Doctor

Long ago, I ventured the opinion that *real* doctors are born, not, made; that some acquire and wear the professional mantle as though by Divine right, while others gain it only by infinite travail and ever thereafter appear like a tailor's dummy arrayed in a \$9.95 suit. Now and again, we see a glorified specimen of this variety riding in his limousine, holding any number of medical offices and charging colossal fees for his services. His professional

mantle is perfect—too perfect—in cut, and the quality of its material is unquestionable, but, the garment hangs in stiff folds and never looks comfortable. People stand in awe of, rather than love and trust, him and children don't run to meet him, nor, better test still, do they greet him with a smile and outstretched hands from their sick beds. This man may have made his practice pay, if monetary returns alone are to be considered, but, it is safe to say that he has missed entirely some of the greatest rewards that come to the real doctor. To make *your* practice pay, as it should, not alone cash dividends but a constantly increasing increment of love, respect and confidence, is going to be a man's-size job, calling for long and intelligent effort, but, if you give the best that lies in you, the ultimate return is reasonably sure.

It really matters little whether you elect to practice a specialty in a great city or general medicine in a small country town; the essentials of success rest essentially in *you*. If you possess ordinary skill, a warm heart, a pleasing personality and the desire to understand and serve your fellowman to the extent of your ability, you will succeed—you *will* "make your practice pay."

The doctor is not a trader; it is not at all desirable that he take advantage of the obvious weaknesses of others, though indeed, indirectly, he often profits thereby. It is not well for him to give the impression that he has something to sell, much less that his best goods go to the highest bidders. The man who has the paying practice—providing, of course, that he use ordinary business sense in financial matters—is he who *gives service*, cheerfully, in good measure and with a proper admixture of the milk of human kindness. Drugs, dressings and instruments are essential, but, kindness, courtesy and an understanding of human nature also are *sine qua non*.

When women say, "Doctor . . . understands one so," if children run to meet him, and men don't hesitate to tell him their

own troubles, or place him in absolute charge of their families' physical welfare, there is little question of that particular practice paying—always providing, of course, that there are enough people of ordinary means within a reasonable distance to keep the doctor busy.

The Small Community—The Chronic Cases

In small communities, on the real "firing line," it is not always an easy matter to make even a good, ordinary practice pay satisfactorily. There are "busy seasons" when the Doctor has to work night and day and slack periods when domiciliary visits are decidedly few and far between. Then is the time to cultivate the "chronic cases." First of all, be prepared to take care of them properly, and then let the word go forth that you have time to give office treatments. Go after such patients in a painstaking way and be very certain to employ some method of treatment which has an appreciable effect. It is quite possible that Mrs. Smith may be cured by the administration of ordinary drugs, careful dieting and simple hydrotherapeutic procedures, but, she will never believe that these things did the work if she has received high-frequency treatments at the office. The patient's psyche must be studied and, for his own good, he must be made to believe that something very definite—and, perhaps, a little unusual—is being done for him. As a matter of fact, in chronic diseases, you can very well afford to try the unusual for, the chances are that other practitioners have exhausted routine measures.

Cure a few local "chronics," improve the vision or the ambulatory powers of one or two old residents, and you will soon find every hour occupied. Moreover, such people will come when called, which means a great deal. The fees in such cases should be graduated according to the patient's ability to pay. But, give each and every one the best you have and take pains to keep abreast of the times sufficiently to know what the best is.

The Business End of It

Render accounts regularly; educate your people to pay their bills promptly. In a human way, let them understand that, in order to give them up-to-date service, you must pay modern prices for every instrument or appliance. The ordinary human

likes to have his doctor arrive in a fast car; he wants "the very best there is" for himself or his people when accident or illness comes, and he wants his medical attendant to know what he is doing and be able to do what he knows should be done. For such service, good fees should be asked as a matter of course. It always is possible to reduce a charge, never to add to it, even though the patient express astonishment at its minuteness.

It is well for the doctor to be a "live citizen" as well as a professional man. While carefully avoiding definite alliance with factions, cliques or sects, he should take an interest in everything pertaining to the wellbeing of the community in which he lives. His voice should be heard, his influence felt in civic matters and, whenever it is possible for him to do so, he should mingle socially with his fellow-townersmen. Always, wherever he is, whatever he is doing, he should give the impression of being a man, a gentleman and capable of doing greater things should the need arise.

As your income increases and the bank balance approaches or passes the four-figure mark, look for some good *local* investment. Failing something especially attractive, your banker can always arrange to loan your surplus funds at 6 percent or, now and again, some individual in whom you have confidence may be glad to borrow a few hundred dollars and give good security therefor. The opportunity frequently offers to obtain stock in local business enterprises and these usually pay steady, if not enormous, dividends. Great care must be exercised, however, in investing money "outside," for, the physician has ever been a "shining mark" for the promoter and "opportunity" peddler, and it is safe to say that, nine times out of ten, the practitioner who invests in mining, plantation, rubber or oil stocks *et hoc genus omne*, finds himself shorn. Nevertheless, the fact remains that, only by intelligently investing his surplus income, is it possible for the physician to accumulate a satisfactory provision for his declining days and, unless the last years of a busy life spent in serving his fellow men be free from the shadow of poverty, one can hardly consider that he has made *his* practice *pay*.

What Others are Doing

THE ENDOCRINE SUBSTANCES IN DAILY PRACTICE

More help is given us by Garretson (*N. Y. Med. Jour.*, Feb. 7, 1920) in the matter of applying the glandular extracts to actual cases. In subthyroidal states, he tells us, the eyebrows are scanty. In adrenal types, they are thick. "Thyroid teeth" are well formed and white. In pituitary types, they are separated or spaced and also are white and glistening. Adrenal teeth show dark markings or spots. Gonadal teeth exhibit torsion, disproportion and, frequently, absence or semilunarity of the lateral incisors.

The skin, in adrenal types, shows pigmentation, as, freckles, moles and brown patches. The thyroidal skin usually is blond and clear and smooth. In hypothyroidal states, it is rough and scaly. By the shape and size of the ears, one is able, also, to make a correct endocrine classification.

Feminism in the male denotes the domination of the pituitary, whereas masculinity in women indicates that the adrenal is dominant. Hyperthyroidism in a person often manifests itself by nervous or hysterical symptoms or by a hypochondriac attitude.

The history, in earliest life, of infectious and other diseases may tell where the endocrine fault lies. A pituitary person is prone to diseases attended by periodicity, such as, malaria and syphilis. The thyroidal type is prone to intestinal disorders and to some forms of cardiovascular disease. The adrenal person has his tendency to hyperchlorhydria, to hypertension, and to diphtheria; he also is liable to hernia and varicocele.

The observation is interesting, that the adrenal secretion maintains the tonus of the sympathetic, and that the pituitary (posterior lobe) controls the extended vagus. Knowing that the circular muscle fibres of the bowel are controlled by the extended vagus and that the longitudinal fi-

bres are supplied by the sympathetic, we understand better the mechanism of diarrhea and constipation.

Such shock affections as hayfever are apt to attack those suffering from endocrine fatigue which also is present, often, during and after infectious diseases. For this reason, adrenal feeding is advised. It is said to reduce the period of acute disease and hasten convalescence.

The sphincter of the bladder is controlled by the pelvic vagus, stimulation of which, with a few doses of pituitary substance, will cure bed-wetting as if by magic, we are told.

Ovarian dysfunction is compensated for, chiefly, by the pituitary and adrenal glands, or both, as well as the thyroid; this explains such symptoms, reflected through the sympathetic, as hot and cold flashes in women.

The thyroid maintains the fluidity of the blood during the menstrual flow; that is why the gland normally enlarges during menstruation, due to increased function. The thyroidal function is lessened during pregnancy, which explains why certain women of the subthyroidal type feel better when pregnant.

THE GLANDULAR EXTRACTS AS REMEDIES

In a recent paper by Timme (*N. Y. Med. Jour.*, Feb. 7, 1920), we find indications for the use of the several glandular extracts now available, such as the following:

1. In thyroidism with a minus secretion, the hair growth is scanty; in pituitary dysfunction however we have hirsute features. Patients of this latter type, for example, instead of having ordinary eyebrows, will have heavy eyebrows that meet over the nose. And, hairiness may extend to such skin surfaces as are bare, ordinarily.

2. In gonadal disturbances, we have odd features. As a result of relative adrenal

hypersecretion, we find woman in many ways masculine, with hair on the lip and the pubic hair assuming the pyramidal form that is characteristic for man.

3. The teeth often give a clew to the troubling gland. A woman with undeveloped incisors usually has a minus ovarian condition.

A leading symptom of glandular disorder is, fatigability. Another is, headache of the intratemporal type; it is quite characteristic of pituitary involvement. Disproportion in the skeletal structure points to endocrine disturbance. Anomalies of the secondary sexual features are likewise illuminating. Certain complaints of vaso-motor origin, too, such as, flashes and tinglings and paresthesias, indicate glandular irregularities; the adrenals are usually at fault in such cases. The white line of Sergent gives additional clinical proof of this. It is produced by stroking the surface of the body with the palmar aspect of the finger. Normally, when this is done, the thorax shows a pink line. If one finds a white line with no pink coloration after such stroking, it is probably due to a lack of adrenal secretion.

In persons prone to hernia and varicosties, or subject to bed-wetting, the adrenals are subject to disturbance, as a rule.

VACCINOThERAPY IN OSTEO-MYELITIS

In *Paris Médical* for October 11, 1919, Raymond Grégoire gives a detailed report of a series of cases of osteomyelitis, in children varying in age from a year and a half to twelve years, and treated with staphylococcus bacterin. The results surpassed his expectations.

The vaccine employed in the beginning of the case was always a stock bacterin; in the last injections, an autogenous bacterin was used. M. Salimbéni, of the Pasteur Institute, prepared all the bacterins and they were the only ones that were used. It is important to have always a reserve of stock bacterin, because the treatment should be commenced as soon as the patient enters the hospital and the diagnosis is made. A delay of four or five days, necessary to prepare an autogenous bacterin, may be prejudicial to the patient.

If there is an easily accessible abscess, pus is withdrawn for the preparation of

the autogenous bacterin that will be used at the last. In the beginning, M. Salimbéni prepares a stock bacterin from this pus, as stock bacterins made from the regional germs are, in his opinion, most efficient.

The site of the injection does not make any particular difference. The deltoid region, the anterior face of the thigh and the abdominal wall were all used.

The dose is of great importance. In the first injection, it is best not to exceed 1/10 mil holding in suspension 200 million microbes, though it may not be necessary to hold so rigorously to this number in the last injections. It is important not to renew the injections until the symptoms of reaction disappear. Here is the dosage employed.

Case I. Two injections: Total dose 600 million microbes.

Case II. Six injections: Total dose 3,400 million microbes.

Case III. Three injections: Total dose 600 million microbes.

Case IV. Seven injections: Total dose 4 billion microbes.

The reactions are slight and consist of a slight elevation of temperature and a local zone of tenderness, redness and pain. The most constant reactive sign is, an increase of the pulse rate. A pulse rate of 90 or 100 may increase to 140 or 150 in the hours following the injection. However, the pulse is vigorous, strong and regular, and the patients do not seem to suffer any inconvenience. Stock and autogenous vaccines produce the same reactions. The pulse remains at this increased rate during two or three days, though without giving a sign of fatigue.

The kidneys were examined before beginning the treatment. In four cases, albumin appeared in the urine after the injection of the vaccine. In three cases, this phenomenon appeared at the first injection. The albuminuria usually was transitory and disappeared rapidly.

When the lesion had first been operated on, even with a good technic, the results were entirely different. The first signs of amelioration appeared twenty-four hours, more frequently forty-eight hours, after the injection. The general condition improved. It was found that the patient feels better even when the temperature remains elevated. The appetite comes back. He ever is hungry. The face no longer is drawn. The child sleeps and this change coincides, without a doubt, with the diminution of the

local pain. In five to six days, the temperature falls to normal. The limb which was red and swollen resumes slowly its normal dimensions. In fact, when all trace of inflammation has disappeared, there still remains a fluctuating point which either may disappear in time or may persist.

In Case I, the child left the hospital showing, on the internal aspect of the tibia, a small indolent swelling, the size of a two-franc piece. Three months later, the mother wrote that her child walked, played and seemed well.

In Cases IV and V, the child preserved for a time a fluctuating zone, without change. Believing that he had an abscess, the author decided to evacuate by a simple incision. However, he encountered a tissue more or less soft and quite similar to actinomycosis. He convinced himself, besides, that the bone was entirely covered with a membrane, resembling a periosteum, in spite of the fact that there was an hyperostosis. He sutured without drainage and the wound healed by first intention.

In Cases II, III, and IV, the swelling disappeared completely. In Cases IV and VI, there remained an hyperostosis of the subjacent bone.

INTRAVENOUS INJECTIONS OF HYPERTONIC GLUCOSE SOLUTION IN INFLUENZA-PNEUMONIA

For several years, glucose has been employed in the treatment of serious diseases, chiefly through administration by mouth and rectum, and for the purpose of supplying the organism with a food substance that is easily assimilated and of high caloric value. More recently, the intravenous use of hypertonic glucose solution was suggested in the treatment of serious diseases and this method was employed at the Camp Travis Base Hospital in an attempt to lessen the mortality from influenzal pneumonia in last year's pandemic.

Doctors Clifford W. Wells and R. C. Blankinship reported upon their results obtained in 319 cases of influenzal pneumonia in which one or more injections of sterile hypertonic glucose solution had been administered intravenously (*Jour. Amer. Med. Asso.* Jan. 10, p. 75).

While, for full details of this report, the original must be studied, it may be

mentioned here that four strengths of solution were employed, namely, 5, 10, 15 and 25 percent, and it is recorded that the lowest death rate occurred in that group of patients receiving a 15-percent solution. However, the various tables, adduced regarding the comparative mortality, do not permit a decision as to the most advantageous strength to be employed. Theoretically, a 25-percent solution should be more efficient than a weaker one.

In certain instances, the socalled "protein reaction" occurred after the injection, and it has been suggested that failure to remove all foreign matter from the solution may be responsible for it. The authors leave the question open. However, they deliberately induced this "protein reaction" in some cases by administering killed typhoid bacilli in physiologic salt solution, being convinced that it was of distinct benefit.

Regarding the mechanism by which glucose solution aids the organism in recovery, this probably is not fully understood. The authors believe that both constituents, namely, the sugar as well as the solvent, play a definite role.

Undoubtedly the idea, that this treatment tends to correct the serious condition of dehydration, is very acceptable. As the hypertonic glucose solution enters the blood stream, there is, at first, a withdrawal of fluids from the body tissues sufficient to maintain an isotonic condition of the blood. However, the glucose is given off from the blood almost as rapidly as it is injected, as is shown by the fact that, shortly after the injection, the sugar content of the blood will be found normal. It goes without saying that the considerable amount of fluid injected is of advantage to the dehydrated organism. Moreover, this same factor tends to dilute the toxins that are produced in large quantities in the diseased foci and are carried into the blood stream from whence they are eliminated through the kidneys.

Clinically, the authors record a marked improvement, following glucose injections, in a number of desperate cases. Patients, previously restless and semidelirious, dropped into restful sleep during the course of the injection; the anxious, toxic look disappeared and the hot, dry skin became moist; the tongue, previously dry and

coated, became moist; the appetite for food and liquids became less capricious and seemed stimulated. Finally, the urinary output was increased.

The authors do not wish to infer that glucose solution should be substituted for antipneumococccic serum in cases of Type-I infections, but, suggest that it may be added to the serum treatment.

ENDOCRINE TROPISMS

One of the endocrine organs may dominate in a person without denoting morbidity. Such domination simply results in determining what we know as temperament in that person, or minor physical peculiarities, impulses and susceptibility to disease agencies. An adrenotrop, for example, usually has a pigmented skin and is quite masculine, or manly, whereas one of the pituitary type, if a male, is apt to have feminine traits. Such a person also is likely to have coarse, dry hair, with the feel of oakum. This is worth knowing. A superactivity is contrived by nature for good reasons and, it may be in order to maintain a fair status of health, that this structure is strained at all times. Such persons are prone to diphtheria, wherefore, during illness and long after, the adrenal glandular extract is called for.

These and other kindred facts are brought out by Kaplan in the *New York Medical Journal* (Feb. 7, 1920). He tells us, further, that persons of this type do themselves much damage, these days, with acetylsalicylic acid (aspirin), which is a powerful adrenal poison. Its unbridled use during the influenza epidemic was unfortunate, and he attributes many of the deaths to it. In these cases, acetylsalicylic acid was the straw that broke the camel's back.

Heartburn after acetylsalicylic acid indicates interference with the adrenal function.

The fact that one endocrine structure is a curb on another is to be kept in mind. Such inhibitory influence is exerted, on the adrenals, by the gonad glands. If the latter are subnormal, or lagging, the adrenals naturally become hyperactive with the restraint removed. We may have a female with poor ovaries, or none at all after op-

erative removal, hair on lips, and high blood pressure, presenting an exceptional adrenotropic constitution on this account; such a woman will tolerate huge doses of acetylsalicylic acid and recover nicely from diphtheria without complementary adrenal extract.

Asthma is interpreted as an adrenopathic condition. The suprarenal glands, we are told, supply an enzyme to the red blood corpuscles which enables them to abstract, from the air in the pulmonary cells, the oxygen needed for existence. Sajous calls it oxydase, since its purpose is, to promote oxygenation. When this is deficient, the symptoms common to asthma show, such as labored breathing, for example. The readiness with which adrenal injections modify an asthmatic attack seems to support this view.

The cortex and adrenals are held to be closely related. Proper cerebral work and normal adrenal function go hand in hand. Adrenal feeding is therefore advised in brain fag. Vigor and force are results of adrenal function. A woman with strong adrenals will be a leader for her sex to good ends, but, if her gonadal equipment is weak, she will be no more than a cranky schoolmistress, a prude, or "a common scold." The secreting glands are copartners though not always for the weal of all concerned. When one weakens or fails, another renews its efforts, or expands as though a void must be filled, doing more than its share, with final harm to the organism. It is believed that sudden hyperactivity of the adrenals accounts for eclampsia.

Thus, troubles often come to the woman at that period known as "the change of life." In the gonadopause, or defection of her sex glands, the adrenal and the thyroid, taking advantage of the situation, give rise to the vasomotor disturbance and to psychic upheavals common to this period. Small doses of ovarian extract are, therefore, useful in the crisis.

Men, in the corresponding period, are often adrenopathic, with high blood-pressure. A grain of thyroid extract, every other day, is good for them. And regards smoking, the writer thinks that it should be allowed in moderation.

Let's Talk it Over

Scientific Food Preparation

3. Too Much Cooking

TO "eat what is set before you, asking no questions for conscience's sake," nor for reason's, is the first and the most important thing we learn to do by instinct; and to control our instincts, sadly degenerated by artificial living, is the last thing of vital importance that we are learning to do.

For uncounted ages, our primitive ancestors ate what they found that looked and tasted good, and it is too sudden to improve upon the animal habit by the exercise of reason, in such a vital matter, within the short period of this scientific age. In no habit of living should instinct be entirely superseded by reason, yet, in all of them, great improvement can indubitably be effected by the judicious exercise of reason.

Civilized man has claimed the right to exercise, with little restriction, the two primal instincts. The great war has, however, so demonstrated the necessity of improvement in these fundamentals that a new era is promised by the individual and social movements that have been set on foot since the war began. It is safe to say that the people have learned more about food and diet, during this period than in all previous time, and, if the high prices continue long enough to demonstrate the great benefits derived from eating to live, the war will have been worth all it has cost.

Great as has been the benefit from the development of a science of infant feeding, during the past thirty years, even more may be expected from the development and general adoption of a science of feeding children and adults. As an example of what can be accomplished with children by a scientific system of feeding, I may refer

the reader to an article of mine in the April issue (p. 251) of this journal.

We have been very slow to recognize that scientific agriculture can produce better results than those handed down from father to son. Scientific education is not yet a century old; so, perhaps it should not seem strange that scientific feeding should still be in its infancy.

How slow we are to mend our ways in matters of food preparation, is strikingly illustrated in the case of the fireless cooker. Considering its great advantages, in the improvement of food and in the saving of fuel and time, it seems strange that this device should not be regarded as being almost as indispensable as the cooking stove; yet, less than ten percent of the housewives are using the better method of cooking. Many are not even advanced so far as to use the double boiler for the preparation of cereals, potatoes and other foods requiring long boiling, while the frying pan is still in use in the homes of many who regard themselves as intelligent and progressive.

An average temperature of 150° F., maintained for five hours in the fireless cooker, is much better cooking for rice, for example, than one hour at the boiling point. Protein coagulates, becoming more or less indigestible, at an average temperature of 160° F.; so that every degree above that temperature, especially of dry heat, lowers the nutritive value of any food. The change that is effected in the conversion of starch to sugar, in fruits and in some other foods, by the action of the sun, long continued at an average of 90° F., is more closely approximated in fireless (so called) cooking than by any other process; and, of course, the electric fireless cooker is a further improvement, for obvious reasons. An essential element in all complete foods is protein, from

which the tissues are formed. In the digestion of protein, the most complex of all the elements of food, coagulation by the hydrochloric acid of the gastric secretion prepares it for the next step in the intestine; but, when protein is more or less coagulated by excessive heat, in cooking or by a different acid, the normal coagulation is prevented, more or less, and digestion is incomplete. For this reason, partly, poaching or soft boiling is better for cooking eggs than frying; and, for the same reason, frying or roasting is not so good a method of preparing beef as boiling; further, the fireless-cooker method is better than even the double boiler in the preparation of any food. Baked beans are among the most indigestible of foods, chiefly for the reason given, and boiled milk is altogether inadmissible in the feeding of the infant.

In October 1907, a protracted discussion was reported in the newspapers as to the cause of death in several persons, in Illinois, who were officially reported as having died from eating roasted peanuts or peanut candy. At the same time, a distinguished southern judge was reported to have died from eating roasted peanuts to excess. I stated, in my *Daily Health Hints*, a newspaper feature that I had recently originated, that the danger in the eating of peanuts lies in the excessive coagulation of the protein which exists in large proportion in the ground nut, owing to the excessive heat to which they are subjected in the roasting; that, while peanuts were commonly so badly roasted as to cause death if eaten in large quantity, one might live well on peanuts alone, if properly prepared by heating them to a temperature not exceeding 160° F., in an oven for three or four hours, after which the skins are easily removed. A challenge to prove this was accepted, and, afterwards, Doctor Jaffa, professor of nutrition at the University of California, had three students live on peanuts exclusively for ninety days, they doing their usual work well during the entire period.

Several men in the party of Steffanssen, the well-known arctic explorer, lived for fifteen years on raw caribou, in more perfect health on this diet than on the ordinary hotel fare in New York. It is not quite agreeable to think of eating a pig without cooking it in some such fashion as that Chinaman did who first ate roast

pork, yet, it is well to remember that "rare" roast beef is preferable to "well done", especially for sick people.

High temperature, and, especially, that of frying and roasting, is more or less injurious to all foods. The acids developed from fats, when they reach the smoking point in frying, are extremely irritating. Corn oil, which smokes at a higher temperature than other fats, is not adequately appreciated for this as for other good distinctive features.

The mineral elements of food are very important in nutrition. High temperature reduces them, to a degree, to their inorganic condition in which they are unassimilable. While, therefore, a dish of fried potatoes is inadmissible in a rational diet, and should under no circumstances be given to the sick, as every physician knows, and while baking is a much better means of preparation, proper boiling, followed by drying, is still better.

THOMAS J. ALLEN.
Eureka Springs, Ark.

"INSTRUCTIONS TO THE TUBERCULOUS"

The "Instructions to the Tuberculous", by Professor Solomon Solis Cohen, of Philadelphia, which appeared among the leading articles of *CLINICAL MEDICINE* for February, have been reprinted in a form in which they are very useful. Copies of the little pamphlets can be obtained for 10 cents each by writing to the Journal.

LETTERS FROM FRANCE XXII *

"There are, at this moment, in France, two old men to whom I have restored youthful vigor by the operation of grafting upon them interstitial glands taken from an ape. The operation is simple. A local anesthetic is used. One cuts open the skin, introduces the tissue and sews up the incision. Nature completes the process by assimilation."

This statement, which is no less than a definite claim to have achieved at least a partial realization of the immemorial dream of the elixir of youth, was made by Dr. Serge Voronoff, one of the leading experimental surgeons of the present day

*This letter was written Dec. 18, 1919. In connection with the subject of Voronoff's work, Doctor Lydston's paper, among the leading articles (p. —) is of interest.

and holder of the important post of Director of the Physiological Laboratory at the College of France, whose recent lecture on the subject of rejuvenation by grafting has caused a profound emotion in Paris.

In 1913, he described, to the Medical Congress in London, successful experiments of a remarkable character on a ewe. In June, 1914, again, much interest was aroused by the successful operation he carried out upon an idiot boy of 14, on to whom he grafted a monkey's thyroid gland. The result of this transplantation, which procured for the boy the secretions necessary to the proper functioning of the brain, was, that, in two years' time, from being a complete imbecile he could read and talk normally, and by 1917 he was so much improved, both mentally and physically, that he was accepted for service in the combatant branch of the French Army.

In a recent monograph, Voronoff states: "I have proved by renewed experiments that it is possible, with the certainty that attaches to a chemical operation, to substitute for the decayed glands in an aged person similar glands extracted from a young animal of the same race, which glands, being assimilated by the body into which they are grafted, restore the vitality that had decayed, and renew youth. The foreign tissues which are introduced are nourished by the blood circulation of the body which is their new home, while in return they manufacture this vital fluid, which, circulating through the body, restores its vigor.

"Here is a photograph of a ram of 14 years, which corresponds to the age of seventy or eighty years in the human organism. You see how decrepit he is; he can hardly stand, he is timid, feeble. The veterinary surgeons gave him two months to live. On May 7, 1918, I engrafted in him the interstitial glands taken from a young ram. [Photographs were not received.—Ed.]

"Here is a photograph of him two months later. Look how he holds his head; he is as full of pride of strength as a lion. To prove that it was not merely good feeding and care that had wrought this change in him, I removed the interstitial glands from him. They were examined by a veterinary surgeon and found to be quite normal; his organism had assimilated the grafted tis-

sues perfectly. But, at once, the old ram fell into an astonishingly rapid decline. He was soon feebler than he had been before the original operation. Once more, I introduced into his organism the interstitial glands of a young goat; once more, he regained youthful vitality and assumed the appearance of an animal in the prime of life.

"The tissue of apes has been proved to adapt itself perfectly to introduction into the human system. It is all a question of the blood. The blood of apes is exactly the same as that of men."

Is the problem of senile decay then solved? "I am an experimenter," replied the doctor cryptically. "I continue my laboratory work."

As I left the surgeon's house, I saw in a golden cage in his drawing-room a beautiful monkey with fur-like black silk. He chattered and leered at me with his wizened face. Does he know that his tribe may hold for us the supreme human blessing of extended youth?

Professor Carrel, the great authority on human grafting, whose work at the Rockefeller Institute, New York, attracted worldwide attention, while discussing Doctor Voronoff's claim to have brought about rejuvenation in animal bodies by the introduction of interstitial glands, warns the public not to be carried away by the new discovery of a fountain of youth.

It is certainly possible to control growth by operations upon the secretive glands of the body, but, from that to restoring the condition of youth is a very long way. All sorts of theories have been advanced to achieve the same purpose. Metchnikoff's idea, that suppressing fermentation in the large intestine would arrest the body's decay, was one.

"It is probable that such grafting as was the subject of Doctor Voronoff's lecture might act as a stimulant and restore temporary vigor, like alcohol does; however, the process of decay would be all the more rapid for it later. I myself have grafted practically everything in the human body that is capable of being grafted. My experience is that, except in cases of such parts as skin or fat, tissues taken from one person's body cannot be assimilated by another's.

"Individuality has a profound importance in the human organism. It hardly is

probable that tissues taken from an ape would prove capable of being absorbed by a human being and exercising so radical an effect as to arrest the natural process of decay."

Men of my generation will remember the experiments of Brown-Séquard in the '90s with the dried powdered glands, with wonderful results obtained in some cases—particularly in nervous phenomena following castration in young women.

The creation of life, of which these claims are a part, will forever remain with the Divine.

Two special courses of lectures for foreigners were begun by the Paris University on November 3: One, at the Sorbonne, on French Civilization; and the other, on Law and National Economy, at the Faculty of Law. These lectures, delivered by professors of established reputation, will give a general idea of the institutions and the political, intellectual and moral constitutions of the country. Information can be obtained on application to the "Bureau des Renseignements" at the Sorbonne.

A London hospital physician gives the following instructions for avoiding colds and influenza:

Keep your mouth closed and breathe through the nose.

Eat a good breakfast; never go out on an empty stomach.

Wear warm clothing but light in weight. Be as much as possible in the open air.

Avoid fatigue for it favors infection.

Flush your rooms frequently with air, but do not sit in a draught; in badly ventilated rooms, infection spreads.

Do not stand face to face with a person who has a cold or influenza.

Do not sit in a train opposite a person who coughs; if it is unavoidable, hold up a newspaper.

Brush the teeth regularly with a good antiseptic.

If you have a cold or influenza, consult a doctor and stay at home until you are well; it will be better for you and your friends.

Let your handkerchiefs be boiled and also all cups, spoons and forks that you use.

When you cough in other people's presence, place a handkerchief before your nose and mouth.

Last week, the deaths from influenza in Greater London were 16, as against 4, 4, and 11 in the preceding three weeks.

Dr. Bourguet, who has already succeeded, by surgical procedures, to impart the

Grecian curve and Cleopatra proportions to most desperately flat, squat or crooked noses, has beaten his own record. On Tuesday, before the Académie de Médecine, he explained how he can give back to a wrinkled, crumbling face the blooming lustre of youth. Wrinkles and flaccid creases being due to the relaxed elasticity of the skin, they can be smoothed off by cutaneous excisions performed on the edge of the scalp or behind the ear.

Scientific men are getting kind to old people. Dr. Voronoff is busy restoring to them their former brains and vigor. Dr. Bourguet is supplying them with a brand-new beauty. If the former has received swarms of telegrams mostly from men, it is thought that the latter may be flooded with feminine messages.

When I asked a small boy how he intended to celebrate Christmas, he replied: "Eat."

This laconic and thoroughly honest answer was characteristic of the hungry growing days of childhood.

The capacity for occasional feasting is a sign of vigor and there is no reason why we should fear plum pudding at any age from childhood to seventy. Plum pudding is very nearly a perfect food for cold weather. It is true that injudicious indulgence may interfere with the festive feeling appropriate to the season. But, our time-honored Yuletide fare is, on the whole, adapted to our national physique and the rigor of our climate.

Let us inquire into the alleged indigestibility of the Christmas dinner.

If we begin the meal with one or two oysters, we are eating one of the most readily digestible foods.

Roast sirloin of beef takes no longer to digest than potatoes and not nearly so long as cabbage.

Partridge and pheasant are more quickly digested than beef.

Fowl is not indigestible, and turkey is digested even more easily than chicken.

The less easily digested Christmas dishes are, roast duck and goose. A fairly strong digestion is necessary for a liberal helping of goose, a highly nitrogenous food requiring over four hours for digestion.

Venison does not require a long process of digestion. Fat pork is a good winter

food, but it is one of the most difficult of meats to digest.

The main point in diet is, the selection of appetizing and digestible substances, and, at Christmas or any other time, it is a fairly safe rule, for all save invalids, to eat what is set before them on the average dinner table.

B. SHERWOOD-DUNN.

Paris, France.

A SOAP FOR VENEREAL PROPHYLAXIS

In the current number of *CLINICAL MEDICINE* (May, 1920), page 335, there is an article by Doctor Burrows, suggesting the use of tincture green soap as a venereal prophylactic. I would suggest the use of Germicidal Soap, Soft, put up by Parke, Davis & Co. in collapsible tin tubes. This soap not only has the qualities of being an excellent soap, but it also contains 1 percent of mercuric iodide in combination, making for better antisepsis than does a plain soap. It is easily carried—no danger of breaking.

C. W. TOMPKINS.

Ft. Pierce, Fla.

[Doctor Tompkins' suggestion is a good one. In this connection, may we say that the soap that he recommends is excellent. Another good "soap" for this purpose is chlorazene antiseptic dusting powder, containing 1 percent of chlorazene in a sodium stearate base. It is not generally known that, mixed with water, it is an excellent detergent agent, which not only lathers well and cleanses thoroughly, but is powerfully germicidal, as well.—Ed.]

A WARNING IN RE: THE NASAL DOUCHE

With the many ear complications prevalent this season, this word of warning should be remembered. No nasal douche should ever be used if one is obliged to tip the head backward for the solution to flow. In this position, the only part of the nose that is cleansed is the floor and the water carries the collection of pus, mucus and bacteria directly back to the funnel-shaped mouth of the eustachian tube where only a slight increase of pres-

sure may carry it directly into the middle ear. I have personally operated upon three mastoid patients in whom the trouble started directly after using such a nasal douche.

If a patient is compelled, because of atrophic rhinitis or of abundant pus discharge, to douche the nose, it should be done only with the head bent forward over a bowl. For chronic cases, the fountain syringe usually is to be preferred, but, for acute cases, the less meddlesome rhinology, the better. The least objectionable methods are the Shambaugh nasal tubes used to draw up the solution out of a tumbler, the small rubber bulb syringe, or the spray. The most dangerous of all such devices is the small glass duck-shaped affair, which should be forbidden by law.

If it is necessary for the patient to make medicinal application to the nasopharynx, he may use a medicine dropper to put a few drops of the solution through his nose and allow it to run back into the throat.—G. M. McB., in the *Journal of the American Institute of Homeopathy*, through *Volta Review*.

[This warning, which we copy from the *Volta Review*, is greatly needed, because of the haphazard manner in which nasal douches are, so frequently, taken; thus setting up middle-ear infection in many cases. We are impressed with the fact that patients should be instructed carefully as to the proper manner in which to take nasal douches—if these are to be employed at all. One important point that deserves attention is, that the water, or medicated solution, should flow under gentle pressure, since forcible flushing or douching may, likewise, have undesirable results.—Ed.]

GATHERING MANDRAKE ROOT

The Abbott Laboratories desire us to request physicians, especially those living in the country districts, to urge their clients, more particularly the young people, to gather the roots of *podophyllum peltatum* (May apple, mandrake) for which The Abbott Laboratories are willing to pay a good price.

As is well known, mandrake, which is indigenous in North America, is very com-

mon in rich, moist woods through the United States and Canada, and is in flower in May. The fruit is not ripe until the autumn and is somewhat sparingly produced. It has a very pleasant subacid flavor and, while varying in size, is usually about as large as a plum. For medicinal purposes, the dried rhizome is employed.

The resin obtained from the rhizome of *podophyllum peltatum* is a remedy of great value which was discovered by Dr. John King, in 1835, and forms the first of the Eclectic alkaloid-resinoid concentrations. It is a hepatic stimulant of merit, acting also upon the upper intestines and the ductless glands. The Eclectic physicians sometimes call it the vegetable calomel.

While, as far as we are aware, the supply of mandrake in the woods is ample—in contrast to many other drug plants that are in great danger of becoming extinct—the usual channels of supply are not always as satisfactory as might be wished, and The Abbott Laboratories, we are informed, would be glad to receive this material for the production of podophyllin, through their physician friends.

RED CROSS NOTES

War's Effect on French Children.—The effect of the war on the children of France is shown in a recent report submitted by the American Red Cross headquarters at Lille. The figures are furnished by the Municipal Bureau of Hygiene.

The city had a prewar population of 200,000. The birth rate has shrunk from nearly 4,900 in 1913 to only 600 in the past year. The figures by years follow:

1913	4,885 births
1914	4,540 births
1915	2,155 births
1916	640 births
1917	600 births
1918	600 births

This indicates a total loss of 15,000 births during the war.

The deathrates according to ages are not known, but, since the armistice, a survey has been made in all public and private schools with a view to obtaining appropriate food for all children whose development has been retarded, and to place all those who show signs of tuberculosis in the care of institutions and welfare organizations. Of 18,000 children in school

at Lille, at the time of the armistice, over 6,000 had to be sent to hospitals or convalescent centers.

This survey indicated that 60 percent of the school population showed signs of arrested development, while about 40 percent gave evidence of ganglionary or pulmonary tuberculosis. In one typical school, out of two hundred and ten examined, only one was in normal health.

A School for Nurses in Bohemia.—Prague is to have the first training school for nurses in Czecho-Slovakia. Realizing that the shortage of native doctors and nurses caused by the war was a very serious problem, and that the best way of solving it was, to train native personnel, the new Government, through Dr. Alice Masaryk, daughter of the president of the republic, appealed to the American Red Cross for assistance. A plan has been worked out, for which the Red Cross appropriated \$20,000, and which already is in operation. Two American Red Cross nurses, Miss Marian Parsons, former chief nurse of General Hospital No. 22, British Expeditionary Forces, and Miss Alotta Lentell, who served with the Red Cross in Flanders, have arrived in Prague to establish the school. Miss Parsons will be the superintendent, and Miss Lentell will be her assistant.

During the three years that these American nurses remain in Czecho-Slovakia, two young Czecho-Slovakian women will be sent to the United States to enter an American training school and prepare themselves to return to their own country and carry on the work initiated by the American nurses. The Massachusetts General Hospital, Boston, has agreed to accept these pupils as soon as they arrive in this country.

Simple Therapeutics.—The native doctors in some parts of Poland (who were also the barbers) had only one rule of practice when confronted with a patient who still showed signs of life. Is he sick? Bleed him! And they forthwith applied leeches. If the man got well, the barber-doctor had made a miraculous cure; if he died, it was the will of God.

Recently, this ancient system of practice has been violently overthrown. American

Red Cross doctors and nurses came into the district and found typhus and many other diseases flourishing, with no medical attention except that which the barber could bestow. An American hospital with all modern medicines and equipment was installed and the barbers soon lost the medical and surgical end of their practice. Their aid was enlisted, however, in closely shaving bewhiskered men and clipping short the hair of those who were infested with vermin. Just now, after weeks of strenuous medical campaigning, headway is being made against the disease which the barbers' leeches had so long failed to cure. Leech-craft has gone out of Poland.

An Operation in the Harem.—“I have had many strange experiences as a woman doctor in the Balkans,” says Dr. Lulu Hunt Peters, of Los Angeles, who was recently decorated with the order of St. Sava by the Crown Prince of Serbia, “but, the oddest operation I ever performed was in Gostivar, Serbia.

“Early one morning a well-dressed Turkish merchant called upon me. He explained that he wished me to operate upon two of his daughters, whom he wished to marry off, and also upon one of his boys. He spoke broken English and good French, but I could not understand what the operations required were.

“Seeing me hesitate, he offered me several valuable rings and bracelets. I assured him, however, that I would be glad to do what I could without compensation. Accordingly, I followed him to his harem.

“After some parleying with one of his elderly wives, he finally called forth his daughters. They came from behind a curtain like two automatons, having evidently been kept in waiting there. Both girls upon command raised their veils. At once I saw why they had not married earlier. Both had hare lips. And so had the little boy.

“Two days later I performed operations upon the two girls and the little boy, on my day ‘off’ from Red Cross work. When I left, two months later, the hare lips had disappeared and the operations had left but a faint trace, in all three cases.”

Malaria in the Balkans.—Americans in the Balkans have changed their opinions of

the Turk character. They do not blame him now because he appears to be lazy, inefficient and despondent. Wherever he is to be found in Macedonia, Albania, Montenegro, Bosnia, and Herzegovina, his characteristics are the same as those of his Christian neighbors with whom he lives in greater peace than do the constantly bickering Christian tribes and nascent nations among themselves.

Dr. Regina Flood Keyes, of Buffalo, New York, an American Red Cross physician who has lived in the Balkans for several years and who has been decorated by the French, Greek and Serbian Governments for operations performed under heavy bombardment, attributed the backwardness of the Balkan peoples to two causes, sandfly fever and malaria.

“The Red Cross fight against typhus, smallpox, cholera and sex diseases in the Balkans attracts much attention in the press,” says Dr. Keyes, “but our real work out here is, the struggle to down malaria. More British soldiers died or were incapacitated by malaria in the Struma Valley during the war than were killed in the taking of the Grande Couronne.

“The whole littoral of the eastern Adriatic from Fiume down to Avlona is a hotbed of malaria and sandfly fever, while the northern shore of the Aegean from Salonica to Constantinople is even worse in this respect.

“America, if she is going to play her role in the world, must do for the Balkans what she did in the Panama zone. These peoples must be taught drainage, how to kill the mosquito and to maintain domestic sanitation. It is a work of years but, we have made a good start in the last thirty months. Malaria causes the all too obvious despondency of the Balkan peoples. To enable them to rise, we must kill the mosquito.”

Educating the Rural Districts in Social Hygiene.—In line with its purpose of bringing health education directly before the people, particularly in remote rural districts, and of cooperating with all existing public-health agencies and societies, the American Red Cross has appropriated \$10,000 as a donation to the American Social Hygiene Association to aid that organization in establishing a traveling ex-

hibit on social hygiene. The exhibit will be mounted on a motor truck and will consist of a motion-picture machine with films and slides on social hygiene, a fireproof booth that can be set up in schoolhouses or churches, and large quantities of literature and posters. A representative will precede the exhibit into each community in order to line up its special problems so that they can be dealt with specifically.

The American Social Hygiene Association was formed in 1914 by the union of the American Vigilance Association and the American Federation for Sex Hygiene, and later merged with the New Morrow under the name of the Society of Sanitary and Morals Prophylaxis. During the war, having secured from private sources some half million dollars, it supplemented the governmental efforts in combating venereal disease by cooperating with official agencies that were promoting the campaign in and around military and naval establishments.

The Association is now back on a peace-time program, but, greatly enlarged and strengthened by its own experiences as well as that of the nation generally during the war. Its program has proved successful and has been adopted in substance and expressed in terms of administrative organization and legislation by almost every state in the union.

Recently, the Board of Health of North Carolina suggested to the Association the value of a traveling exhibit that could go through the rural districts and bring their special problems squarely before the communities. Through the American Red Cross, this was made possible. The first demonstrations will be made in North Carolina and will be followed by demonstrations in other states. The Board of Health will pay rent for the exhibit, which will cover actual expenses.

MORPHINISM

The disease morphinism must be of great interest to humanity as long as there is a patient in the world suffering with it. Much has been written about it, in the recent past, some thinking that it is a mere habit while others have taken the position that it is a true disease with etiology, pathology, symptomatology and a more or less well

defined therapy. Those who have little or no personal acquaintance with it are strongest in their belief that it is altogether a matter of habit. I do not think so but am positive that it has every qualification of a bona-fide disease, possessing the four phases mentioned.

In the first place, morphine addiction is a deviation from a state of health. This constitutes true disease, no matter what the cause or how it came about. A man is drenched with a shower of rain, a chill ensues, a socalled cold develops, finally, pneumonia is the result. Here is a train of circumstances, or causes, that brings about the latter trouble. Altogether they furnish the etiology of the final disease. So it is with morphinism. There is always a causative factor in morphine addiction, outside of pure cussedness, and if you will follow up these cases you will find that their disease is as much the result of a definite cause as is the instance of pneumonia referred to as the result of the "rain."

The following colloquy is a fine illustration of the disease idea: A poor fellow came into a medical clinic, whom the professor called a "damned old doper." The case was followed up and all was learned of it that could be found out. Finally, the question was raised by a student as to whether morphinism was not a disease with a fixed etiology, pathology and constantly appearing symptomatology? This question was raised in the class and the student promptly was silenced with the assertion that "these dopers are a worthless class, worse than drunkards, and none ever had been cured." The question was asked—"cured of what?" The professor got blazing mad and refused to continue the discussion. Yes, cured of what? We cure men of disease, and from this we argue that, if we "cure" one of "habit", it is plainly evident that we have cured him of "disease", because we can only cure "disease", if that.

Further, here is an example where a morbid diathesis has been transmitted from one generation to another—a fixed bias toward opium addiction:

Think of a child, 5 years old, taking 2 grains of morphine daily and who had been taking opium since birth. Here in this county, there is a grandmother, 70 years old, a son 55 years of age, a child 8 years old, a mother (an "addict") with an infant

in her arms, a few weeks old. These children do all right from birth if opium is given them, but, withdraw it and the trouble begins; yet, it abates when the drug is administered.

In passing, I wish to correct some erroneous ideas concerning the victims of morphinism. It is commonly thought that opium makes moral perverts of its users. This is not true. An addict might lie about, or steal, his drug if he could not get it otherwise, as you would about bread if that were the only way to get it. But, under other circumstances, he is as straight, morally, as you. We are going on the assumption that he was morally correct before he became a user of the drug. Some one has truthfully said that there are many of these sufferers who are men of high order; men far above the average in morality; men whom you could trust in any position; to whom you could lend money and get it back. This dire disease has drawn its victims from the best classes of men; the vast majority of them are men of culture and refinement; intellectually, perhaps, above the average.

"Is it true, O Christ in heaven, that the highest suffer most?
That the strongest wander farthest, are most hopelessly lost?
That the mark of rank in nature is capacity for pain
That the anguish of the singer makes the sweetness of the strain?"

Now for the cure. The editors of THE AMERICAN JOURNAL OF CLINICAL MEDICINE are acquainted with my experience. After the lapse of four years, I am a witness of the perfect cure effected by luminal. There has been no backward step. No desire for it, never another dose. No ill effects, but a perfect, pleasant and permanent cure that is definitely established.

Each case must be dealt with individually.

As would naturally be supposed, there have been gathered some experiences and statistics in regard to this treatment which I wish to reproduce here briefly.

I know of 255 patients treated last year. Of this number, 3 only relapsed; 2 died, 1 suicided after the cure—the circumstances of this unfortunate affair were not connected with the addiction or the cure. The second patient died of Bright's disease.

Many of these patients, eight years after

treatment, are alive and will attest their conditions today.

Here in my county, 90 percent of the patients, treated and cured, are well yet.

I write because I am in deepest sympathy with those sufferers, and feel that they should know that there is an escape from a bondage worse than death and from which many escape by that route. It is time that this remedy were getting before the profession in its true light as the remedy for opium addiction.

M. G. PRICE.

Mosheim, Tenn.

CAUSE RATHER THAN CONDITION

An article in the April number of CLINICAL MEDICINE prompts me to say a few things on the subject. The article appeared under the heading "Just Among Friends" and tells of the conditions of factory and shop girls and the good being done by women's clubs, hygiene for girls, and other agencies.

Now, these are all very fine, but, in the practice of medicine, we consider a headache only as an indication of some wrong condition and set about to remove the cause; first, of course, relieving the headache, if possible. It seems to me that the efforts of the women's clubs are directed only toward the "headache" and not the basic condition. They are not getting at the real cause.

The greatest underlying cause of existing conditions is to be found in our commercial and social systems whereby women and girls are compelled to work in shop and factory for a livelihood. I can not believe that it is because girls and women are so anxious to get out into the commercial world in competition with men, but hold that they do so because of the necessity of a larger income for the household and because the present income will not get for them the social and educational advantages that they desire and should have.

We have perhaps the most wasteful commercial system in the world. We have duplication of labor and waste of both time and energy in virtually every line of enterprise in the whole country. Just as an example: A little town of, say, 3,000 population will be visited each week by from four to a dozen grocery salesmen

These men each draw a salary larger than the best-paid clerk in any of the grocery stores visited and, beside this, their expense accounts will amount to more than their salary is. Now, the grocer does not need these men to tell him what he lacks on his shelves. He knows his requirements. What he needs is a standardization of grocery staples, so that he can have something as a guide and, then, he can do the rest by mail and save the expense of six or a dozen salesmen calling on him each week.

The consumer pays the bill.

This is only one of the many existing instances. If all these men were engaged in some productive labor, producing instead of selling groceries for instance, we not only should be saved their salary but have the product of their labor.

If all the men, who are engaged in unproductive labor, or duplications of labor, would become producers, avoiding lost time and saving energy, the men would be able to support wife and daughter and give them necessary educational and social advantages that would satisfy their ambitions without their having to go into factory and shop in competition with men, thus still further reducing the income of the head or prospective head of a family. Many young men are discouraged from marrying because they feel they can not properly support a wife, even as well as she supports herself, on a small income or salary because, as a rule, she spends all on immediate living.

Very few women enter any kind of employment with the intention of making it a life employment and, so, they are not greatly interested in becoming proficient. The ideal of every real woman is, to be a mother in a home of her own with congenial surroundings, and it hardly can be said that surroundings in shop or factory are in any way conducive to the attainment of such ideals.

We are lacking in our homes, our schools and our social life, in that we do not teach economy, nor encourage thrift and industry. Our children are sent to school, not so much to learn an honest trade or profession, but, that they may be able to get through life with less work. Most of our schools encourage extravagance rather than thrift and economy and this is

true from the grade school on up and is plainly noticeable in the graduating outfit of even the grade school in many places.

Why not center our efforts on removing the cause while striving to alleviate immediate conditions? It is not my intention to pose as a reformer but, rather, to provoke some honest, earnest thought on the subject.

C. H. KENNEDY.

Ft. Smith, Ark.

[Probably it is quite true that the circumstances that forced so many women to earn their living, or to help their parents or families by earning money, have contributed to reducing wages and salaries of men. We can well understand that a woman who is earning a comfortable living for herself hesitates to marry a young man, no matter how fond she may be of him, whose earning capacity is but little greater than her own; especially, since marriage would cause them to have to depend upon the husband's wages or salary, while her own income would cease.

However, the invasion, if you want to call it so, of the industrial and commercial fields by women is a fact that must be dealt with and that can not be altered. This fact has become much more insistent since the war when the women were forced to take the places left vacant by their brothers and sweethearts. They have found that they are perfectly capable of taking care of themselves, that, within certain limits, due to anatomical, physiological and mental differences, they can accomplish as much, and certainly as good, work as men; they have found (and so have their employers) that, in many things, women are to be preferred to men for the reason that they are more exact, more painstaking and possess a great capacity for detail.

All these things being true, and many others besides, your demand that the cause of the disease should be removed does not work very well in this particular instance. In short, the metaphor does not seem to hold. Conditions are not strictly comparable; you see.

It is our opinion that women never will give up the social and financial independence they have gained, and, after all, one can not blame them for it. Times change and we change with them. This may be

trite, but, nevertheless, it is true. The best that can be suggested would be, to find some sort of agreement by which apparent wrongs may be righted and seemingly intolerable conditions be rendered tolerable.

It is all a woeful mixup; yet, it is no worse than have been many mixups that happened in past times. Personally, the present writer is an incurable optimist. He knows that all these difficulties will ~~solve~~ themselves—in time. The inherent good sense of people and, perhaps more, the demands of self interest will cause both men and women to make concession, possibly to yield a point here and there, until suitable living conditions can be restored.

To my mind, by far the greater difficulty lies with the arrogant and hoggish desire of some merchants, whether individuals or corporations, to get as much as possible for the least return. Another serious factor is that which we have come to designate collectively as profiteering. Of course, there are a good many other things that might be taken up and talked about, but we don't see that such a discussion would do much good.—Ed.]

SIXTY YEARS AGO

When I began the practice of medicine in a country village, in 1855, the doctor's daily life did not lead him over a bed of roses but over dirt roads with mud as soft at the bottom as it was at the top. As for the horse, he found a firm foundation only when he struck a knee-deep bottom. A country doctor told me (and I always thought he lied, for, personally I never had such an experience) that, one day, while fording a mud road, he saw a hat lying in the road; he reached down to pick it up and, when he lifted it, a voice below said: "Let that hat alone." "Oh, are you down there, can I help you?" "No," he said, "I can get out, I am on horseback." We all went horseback in those days and I had to keep two good horses using them by relays as my headquarters always was in the saddle.

My armamentarium consisted of a pair of pretty large saddlebags filled with a half a peck of bottles, boxes and packages, a thumb lancet in my vest pocket, a pair of tooth forceps made on the conventional plan for service in all emergencies, being made for right or left, upper or lower,

front or back and, with them, I have yanked out, more or less, a nail-keg of teeth, sometimes two at a time and, occasionally, the wrong one as I now remember. When I found that I had pulled the wrong one, I stuck it back where it came from and pressed it down firmly, giving the patient a lefthanded jab under the chin and it went home with a snap like a dislocated shoulder, replaced. I never failed to bring the tooth unless it was stronger in its position than the jaw bone; main strength and awkwardness always brought one or the other.

With the thumb lancet, I have yanked out many small tumors, lanced hundreds of bone felons and many a "bile" (that's what we called them in those days, now, we call them furuncula), always observing strict antiseptic methods with my thumb lancet by never using it until I had wiped it on my trousers.

I had a trocar built on the same plan as my tooth forceps and, with it, I punctured all kinds of dropsies, hydroceles and pleuritic effusions, never failing to tap the lung when the intercostal spaces bulged out like a ripe "bile." In one case, I tapped an old lady's abdomen 63 times in the course of 20 years and withdrew more than 100 gallons of water; finally, she did succeed in dying, leaving her bill unpaid until this day. In the course of my long experience, I have accumulated more than a hundred thousand dollars of such assets, at a time when doctor's fees were about one-third of what they rate at now, and I hope that they are assigned to a safety vault where neither moths nor rust can corrupt and where there are no thieves to break through and steal.

In those days, we treated pneumonia (and called it lung fever) by blisters, bleeding, and tartar emetic. Under that prehistoric treatment, I have seen a great many recover, indeed more people have died of pneumonia since that practice was put in the discard and under the modern treatment and methods. Not that I wish to be considered an old fogey and advocate obsolete methods, for, I am an advocate of the pneumonia vaccines of Rosenow and others and I am sure that I have seen lives saved by them, but, I have no faith in "Flu" serum as a cure.

I practiced for more than 20 years before I ever used or saw an obstetrical for-

cep. The first baby, whose entrance I ever expedited into the world, is now a 6-foot, 200-pounder, 40 years old. At that time, we practiced craniotomy and I had assisted in several cases. I was caught, one night, far away from help, with a primipara who had a contracted pelvis, a rigid os, and the woman was in convulsions. Something had to be done speedily. I had no instruments with me, except for my left-and-right-tooth forceps and my ubiquitous thumb lancet, so, I bled the patient, but, the convulsions continued and the family was in a panic and said, oh, doctor, save her even if you have to destroy the child. Now, you know, I was in a state of profuse perspiration and badly scared. There was lying a large pair of family scissors near by and in my desperation I seized and closed them. Fortunately, they were built on the sharp-point plan, so, I plunged them into the cranium of the child, partially opened and rotated them several times, when the brain matter poured out in what I thought must have been an enormous quantity and, with my tooth forceps, I lapped the parietal bones like two saucers set in each other and then, with a firm grasp on what I could catch of the scalp in my forceps, I extracted a stillborn baby. The woman made a beautiful recovery and afterward was delivered of twins and lived happily ever afterwards.

In those days, women, like many now, preferred abortion to fulltime births and some of them were very expert in producing them.

I have set hundreds of broken bones. That's what we then called the operation, now, we simply reduce the fracture. On one occasion, a 14-year-old boy, was thrown from a colt and broke his thigh bone; now, we would say, a fracture of the femur at its middle third. I was 10 miles from proper splints and help. In my extremity, I improvised an extension and counter extension substitute. There was no proper lumber and the only carpenter tools at hand were, an axe, a monkey wrench and a drawing knife with one handle broken off. From an old dilapidated building in the yard, I tore off a section of weather boarding and, with the axe and drawing knife, fashioned my splint to the "Queen's taste". For bandage, I tore up an old sheet; the mother sewed the strips together and I rolled a bandage about 24

feet long. I adjusted my fracture and applied the bandage from toe to hip, put his shoe on, lacing it tightly, and placed the counter-splint on the outside of his leg. While his mother held his shoulders firmly and his father grasped the shoe, they exerted their strength until I was satisfied that the ends of the bones were in apposition. I, then, with another strip, fastened the lower end to the shoe, thus accomplishing a very successful extension and counter extension. With another of my improvised bandages, I bound the splint firmly to the limb and kept him in that splint for 32 days. On removing the splint, I found a perfect job; the boy walked without a limp and his granddaughter told me, a few months ago, that he still had that splint and was keeping it as an heirloom.

Before we ever heard anything about "twilight sleep" or the pituitary-gland extract as an aid to parturition, we used ergot tea to hasten a tardy case of labor. I, myself, would go out into the rye field and collect the spurred rye, in quantities, and preserve it in a bag in my office. When occasion required, I would take a handful, wrap it in a towel and, with a hatchet, would pulverize it and it was then ready to use. I didn't call it a fluid-extract. I made the tea by taking a tablespoonful of the pulverized rye fungus, put it in a cup of boiling water and, so, I had a half-pint of pretty strong, nauseous tea, which the patient would swallow a little below the boiling point. In the course of half an hour it always brought results and I don't know whether it was the ergot or the nauseous dose that produced the relaxation.

I began the practice of medicine before I ever had heard of morphine, heroin, codeine or any of the scores of opium derivatives. We purchased gum opium like the hardware merchants now purchase putty, a lump of it about as big as a small cocoanut, usually wrapped up in a distended and dried animal bladder, and we usually paid a dollar a pound for it and dispensed it by pinching off a plug, supposed to be about a grain. Of course, we made our own laudanum by dissolving the opium in alcohol, the administration of which was very unsatisfactory because we could not know the exact strength; nor the amount of opium contained in it.

The first addict whom I ever saw began the use of gum opium when she had cholera, in 1833. I used to sell her a lump about the size of an egg and she dispensed it herself. This quantity would last her about two months. She continued this habit all the balance of her life and died in old age.

The first hypodermic syringe I ever saw, was a present from a clerk in the office of Tieman (New York) who made the first syringe. The barrel was ivory trimmed and the needle about the size of an ordinary darning needle. I used it for many years as an aspirator. Before I received the syringe, I would make an incision with my thumb lancet in the arm, about an inch long, through the skin and, when the bleeding had stopped, I pushed a paste of about $\frac{1}{2}$ grain of opium into the incision and closed it with a bandage. From this, I had very satisfactory results and never a sorcerous arm than might reasonably have been expected. By this operation, I gained considerable reputation as a wonderful doctor.

I will close this letter or it will be as long as the letter Paul wrote to the Ephesians.

U. C. WILLIAMS.

Frankfort, Ky.

[Medical practice, sixty years ago, particularly in the country, evidently was not a simple or easy affair, even though we of today are so much more learned and erudite, so much better prepared and equipped to succor the sick.—Yet, are we, really? We have a lot more schooling. Most of us have had hospital experience, many are capable of doing their own surgery and their own laboratory work.

We are proud of our wonderful knowledge and acquirements, today. Undoubtedly, we know more about disease. Is our knowledge of sick people correspondingly greater? We wonder.—ED.]

"VENEREAL PROPHYLAXIS"

The article on the subject of "venereal prophylaxis", which appeared in CLINICAL MEDICINE for June, page 415, was erroneously credited to Mr. William Lobdell.

The author, Mr. William Lobdell, informs us that he is quite willing to assume

the responsibility for his article and, therefore, requests that it be credited, or charged, (whichever it may be) to him, under his proper patronymic.

In this connection, we wish to refer to the custom prevailing in army paper work. Most of our readers may have noticed that communications in the army do not only carry the signatures of those responsible for them but that the names of these persons always are typewritten below the signature. This is a good custom. It frequently happens that letters or articles are submitted to us, beautifully typewritten and unobjectionable in every way. Unfortunately, the name of the author or writer is written with pen and ink and, very often, can not be deciphered. It would be a simple matter to add, below the signature, the same name in typewritten characters. Thus errors would be excluded.

THE SIXTH INTERNATIONAL SANITARY CONFERENCE OF THE AMERICAN REPUBLICS

In accordance with a resolution adopted at the Fifth International Sanitary Conference, held in the city of Santiago, Chile, November, 1911, the date of December 12 to 20, 1920, has been determined upon for an assembling of the Sixth International Sanitary Conference in the city of Montevideo, Uruguay. Dr. E. Fernandez Espiro will be president of the conference, and this will be held under the auspices of the government of Uruguay.

A few weeks ago, Dr. H. S. Cumming, Surgeon General, U. S. Public Health Service, and provisional chairman of the International Sanitary Bureau, issued a call for this meeting, and we have been requested to give it publicity. Among the topics to be discussed are:

The contagious diseases which have prevailed since the Fifth Conference, in particular, influenza, including measures adopted to fight their propagation.

Considerations relative to the outbreak and development of bubonic plague; methods employed to combat it; their results.

Frequency of epidemic cerebrospinal meningitis, transmissible anterior poliomyelitis, and lethargic encephalitis.

Actual status of the combat against tuberculosis, yellow fever, malaria, trachoma, and ankylostomiasis.

Data relative to leprosy and the measures put in practice to prevent its diffusion.

Actual status of the combat against avariosis (venereal diseases).

Organization and operation of the service of disinfection. Work carried out.

Movement of population and rate of mortality during the last five-year period.

Water supply and sewerage service. Their extent.

Application of different systems of paving. Organization and operation of the service of maritime sanitation.

Work of the Health Commission of each one of the American Republics.

Data with regard to the operation of the Sanitary Information Center of Montevideo.

CALENDULA IN THE TREATMENT OF BURNS

On page 255 of the April issue of this journal, you speak of calendula as a wound dressing. For some years, I have used calendula in the treatment of burns. It is a stimulant but allows the formation of pus, and this is objectionable. When 2 percent of phenol is used with calendula and this thoroughly mixed up with crude vaseline, you have a preparation that is far superior to anything else that has been made use of for many years. No one once using it would ever care to use caron oil or picric acid or any other dressings that have been widely advertised. If, after getting the dead tissue away, this ointment is applied, relief from pain is almost immediate. Within twenty-four hours, in most instances, new skin will show itself and no pus whatever; also, there will be but little scarring. In first- or second-degree burns, this preparation will be found most beneficial.

G. SPENCER KINNEY.

Easton, Penn.

For many years, we used calendula rather extensively; of late, chiefly in the form of calenduline (Lowry's formula). We have also, at various times, used an ointment containing calendula and boric acid and found this especially useful in the treatment of first- and second-degree burns. Some years ago, we experimented with an ointment containing as its chief ingredients, calendula and echinacea, being extremely pleased with the results obtained.

Of course, in these days we are inclined to dress all burns with parresine; however, this is not always practicable in general practice, and we believe that an unguent containing calendula, with a small quantity of phenol, as you suggest, or in a borated

petrolatum base, would prove extremely useful, not only in the treatment of burns but as a dressing for abrasions, minor wounds, excoriations, and such.

The Eclectics, as you are aware, for many years have recommended the use of calendula, though King, in his "American Dispensatory," says that "the value of the drug has probably been overestimated."

In catarrhal diseases of the nose and throat, conjunctivitis, treatment of lacerated wounds, superficial skin infections, there is, however, no question of the value of calendula, and, in certain conditions, we believe that it could well be combined with hamamelis virginica.

We shall experiment along this line and, should you feel disposed to offer any further suggestions, we should be pleased to hear from you.—ED.

WAS IT INTESTINAL OBSTRUCTION?

I am going to report a case that was interesting to me, and it is the first one of the kind I have seen.

On January 26, I was called to see William H., age 8. His temperature was 103°F., pulse very rapid, and he had not had a bowel movement for four days. I gave him aconitine, 1/800 gr., every half hour, for three doses; then, every hour. For fever, a calomel and sodium combination, until he had taken 3 grains of calomel, followed by castor oil. That treatment was repeated, though, without any result, after which he was given a low enema every three hours until he had taken four; but, still without any results, and he didn't even expel the water used in the enemas. All this was done in the course of twelve hours. Then, I administered a high enema, using a catheter for that purpose, but, still, without obtaining any fecal matter at all. In the meantime, his temperature was not so high, but the patient was vomiting, at intervals, a greenish fluid.

I suspected intestinal obstruction; however, the patient had no pain and no distention, nor did he have any peristaltic action. I called a surgeon over the phone, giving him a history of the case, and he advised me to use pituitary extract, which I did. I gave the patient 5 drops of that preparation, every three hours, followed by a low enema. In twenty minutes and

after the second dose, I obtained a slight amount of fecal matter which was of very offensive odor. I kept this treatment up for three days, at the end of which time I began giving sodium phosphate (granular), one teaspoonful early in the morning, followed in three hours by a low enema, and, occasionally, I gave a dose of pituitary extract until, finally, the sodium phosphate was taken alone. After peristalsis became reestablished, I began to feed the patient and put him on a reconstructive tonic. I saw the little boy this afternoon, and his mother told me that he was about to eat them out of house and home.

I am glad to be able to report a favorable termination of this case. If I made any mistake in the course of treatment, I should like to know it, but, as results speak for themselves, I certainly feel as though I had pursued the proper procedure.

ROBERT Y. SHEPHERD.

Taylorville, Ky.

[This is the sort of case that can make a physician sweat blood and in which an unfavorable termination may ensue despite all treatment.

The question, of course, arises as to whether an intestinal obstruction gave rise to the severe symptoms reported. That, we believe, is unlikely because, apparently, there was no pain, and, intestinal obstruction usually is associated with pain. The same may be said to be true of intussusception. Fecal impaction apparently is excluded by the negative result of the repeated enemas, unless it was very high up.

The only definite symptoms were, obstinate constipation, producing putrefaction of the intestinal contents (very offensive feces after enema) and fever, which, of course, can supervene easily in case of obstipation.

If we are to venture a diagnosis, it seems to us that there existed either a spastic condition of the intestinal muscularis or a state of atony. In the former event, full doses of hyoscyamine, possibly associated with glonoin, probably would have relieved the lockup. The latter probability, however, appears the greater because of the favorable action of pituitary substances.

However, we must confess our inability to diagnose this case definitely. Frankly,

we do not know its nature. Still, we agree with Doctor Shepherd that, in all probability, he did not have a surgical condition to deal with.—ED.]

ANOTHER SANATORIUM FOR TUBERCULOUS SOLDIERS

According to an announcement made by Surgeon General Hugh S. Cumming, the magnificent tuberculosis sanatorium heretofore operated by the Army authorities at Fort Bayard, New Mexico, has just been transferred to the U. S. Public Health Service, and will soon be available for treating, discharged, disabled soldiers. Splendidly located, not far from Silver City, and conveniently accessible on the Santa Fé Railroad, this sanatorium has long been the pride of the Army. The climate is almost ideal, in that it permits outdoor life for a large part of the year.

The Fort Bayard Sanatorium will provide the Public Health Service with 1,000 additional beds to care for its tuberculous patients. The present sanatorium at Deming will be held in reserve, especially for winter use.

At the Fort Bayard Sanatorium, the Public Health Service will treat only ambulatory cases of tuberculosis, in which the prognosis is favorable. Patients will be admitted only after careful observation elsewhere to make sure that their condition is suitable for successful treatment at the high altitude of this sanatorium. In general, it is the policy of the Public Health Service not to move patients far from their homes, for, experience has shown that such removal often has an unfavorable effect. For this reason, patients for the new sanatorium will probably be drawn principally from the middle and southwest sections of the country.

TREATING THE SPINAL COLUMN

Is there a science that has been subjected to more search or research than that of the healing art? Yet, there is no field of investigation in which there is more guess work on which more merited and unmerited attacks have been launched.

However, there is no profession in which the love of humanity is placed so unconditionally above the desire for preferment and personal gain, none to which the honor

and confidence of its patrons are more freely intrusted. The physician is counselor and friend to whom is intrusted not only the honor but the life of the patient.

It behooves us, therefore, to make our profession a most exalted one and this goal we can hope to attain only by investigating every known method of treatment, that may accomplish good, with an open mind, and hold fast to that which is found to possess true merit.

It is unwise on our part to ignore, or pass without due consideration, any newly discovered method of diagnosis or treatment that is based on reasonable principles and rational methods. We have the various cults or pathies, all practicing their various methods for the relief of suffering and curing the sick and all possessing more or less merit.

Oh! Would some master mind be able to amass the colossal amount of knowledge from the various cults and extract from each one the meat so that it would be available to our use in a condensed form. How much more proficient this would make us in our profession.

In spite of the immense amount of work that has been done by investigators, we find that the spinal column has received less attention or study than any other part of the human anatomy. Gross, or major, lesions, have forced their attention upon us but the minor lesions have passed by unnoticed. Although John Hilton and Sir James McKenzie make note of lesions of the spinal column in relation to disease or disorders of the viscera, apart from this, not much is found in the literature.

The spinal column, being composed of segments, is necessarily flexible. It is, therefore, reasonable to believe that jars or blows can cause a slight dislocation of certain segments as they can in other parts of the body. This slight dislocation will press on the bundle of afferent and efferent nerves issuing from the notch formed by the pedicles of the vertebrae. The nerve or nerves being irritated, there is bound to be produced some disturbance in the region they supply.

Just to illustrate:

While a man was using a crowbar, a wheel fell on it giving him a severe jolt. Immediately after this, he was seized with such an intense pain in the head that he came to me for relief. On palpation, I found the fourth cervical vertebra very

tender and displaced. I reduced the dislocation, with instantaneous relief of the pain.

A woman, three years before coming to see me, had fallen, striking the back of her neck on the car fender. Ever since, at short intervals, she had occasional seizures resembling epilepsy. I found the second cervical displaced to one side. After its reduction, the seizures stopped.

A woman, 2 months pregnant, came to me for pernicious vomiting that had lasted two days. I tried everything, but, with no result. I found the 6, 7 and 8 dorsal vertebrae tender. Directing force to the 7th vertebra, twice at 10-hour intervals, caused the vomiting to cease.

I might cite many other interesting cases; for, I have found that treatment of the spinal column is a most potent remedy in neuritis, lumbago, sciatica, intercostal neuralgia, herpes zoster, rheumatic pains, headache and neuralgia. From the foregoing, I believe it is apparent that a study of the spinal column demands our interest and that, in the future, it may reveal many important things.

W. G. MAINPRIZE.

Midale, Sask.

HOW TO GIVE INTRAVENOUS INJECTIONS

I have read a great deal about intravenous medication, pro and con, and have been very much amused by some of the articles, especially the Oklahoma doctor's poem. I don't recall his name, just now, but it made me think of a saying of Dr. Hobart Hare, of Philadelphia. There are those who deride the use of drugs in the alleviation and cure of disease. Such persons have never used them or have used them improperly. Like every other thing requiring a thorough knowledge of its component parts, methods of treatment are often much abused by the careless and ignorant, though they are a power for good in the hand of the properly-educated physician.

I can bear out everything that Doctor Geyser says in this article in your May issue and I can assure anyone, who will follow a few simple directions and have everything aseptic, that they will be more than pleased with the results from intravenous medication. I have been doing intravenous work for the past ten years, ex-

cepting about fifteen months, when I was in the Medical Corps of the Army, where the Chief of Service of the Base Hospital, where I was stationed, would not allow intravenous injections, as he was afraid we might have some bad results; and I did not care to take the chance.

I have seen hundreds of cases of malaria and of arthritis, or rheumatism, acute and chronic, whichever you choose to call it. Some doctors say that there is no such thing as rheumatism. Asthma and other chronic cases, especially malaria, that stayed in the hospital for weeks and months, could have been cleared up in ten days by intravenous medication. Any patient, being given 15 grains of quinine dihydrochloride intravenously for ten days, won't have any more chills until reinfected. If they do, it is a rare occurrence. I have never seen a relapse after 10 injections and I treat my share of malaria and check up a great many of my cases with the microscope.

I don't treat all cases of malaria by intravenous medication, for obvious reasons. However, I will say that all cases in which it is employed get the best treatment. For instance, given a patient that has had a chill and shows a temperature of 106 degrees F. Inject 7½ grains of quinine dihydrochloride, in solution, into a vein and watch him promptly sweat the fever off, the temperature falling to normal in three or four hours, with no cinchonism or nausea. The stomach is very easily upset and quinine sulphate won't settle it.

You don't have to give a purgative until the next morning when the patient is feeling very well, except in unusual cases. Keep up your intravenous injections for ten days, adding a tonic, and you have a well man. You can't do this with quinine by the mouth.

Another feature about it is, that the patient will take medicine by mouth, especially quinine, until he feels better and then he quits. But, what you put in his veins, he gets and, usually, he will stick to his treatment until it is completed.

Doctor Geyser says that he gave 1343 intravenous injections in 1919. Just for the curiosity of it, I counted the empty ampules in one of my desk drawers, used from the last of February, 1919, to the present time. This is, I guess, about 2-3

of the ampules I used, as I did not save the ones used at the bedside, while a lot of those used in my office were thrown in the stove. There were 2,740 empty ampules, in the desk, which had contained the following drugs: quinine and urea hydrochloride, quinine dihydrochloride, emetine hydrochloride, arsenoven, sodium iodide, sodium salicylate, sodium cacodylate, phylacogens, arsphenamine, neoarsphenamine, iron cacodylate, digitalis, hexamethylenamine and venarsen. In all, I have given considerably over 3,000 intravenous injections, in the past fourteen months, in a wide variety of diseases and under many varying circumstances.

I have said a good deal about quinine for malaria, because results from intravenous medication are so striking in this disease, but, you can get wonderful results from other indicated drugs and in other diseases. I treat a great many cases of pellegra and of venereal diseases, and I don't know what I would do without intravenous medication.

My technic is very simple. I boil an all-glass, Luer-type syringe, of from 2 to 30 mils capacity, separating barrel from plunger, and a 23 to 26-gauge needle, according to the amount and kind of medicine. Break ampule and draw medicine from ampule into syringe; expel all air and small bubbles and have medicine flowing from needle-tip. A 25-gauge needle is the best for general work. I use common tincture of iodine on a cotton swab to sterilize the skin of the patient and I find a medium-size rubber catheter the best tourniquet. Chord the arm just above the elbow and have the patient double his fist several times to make the veins stand out; gently stroke the arm upward. Let the patient hold the tourniquet with his free hand. Paint the skin, over the vein you propose to inject, with tincture of iodine; this will dry in a few seconds. On plunging the needle into the vein, there will occur a backflow of blood into the syringe. Then you know you have made a successful puncture. Now tell patient to release tourniquet, and inject slowly.

If this method is followed carefully, there will be a perfectly painless injection. The injection is to be slow and steady. You can hardly inject too fast when using a 25-gauge needle with a 30-mil syringe, but

you can, and have, to go more slowly with a smaller-size syringe.

After the injection is finished, withdraw a few drops of blood from the vein to be sure that none of the solution is deposited in the tissues. This is especially essential when making neoarsphenamine injections, as even only a drop or two, deposited into the tissues when withdrawing the syringe, will cause induration.

I place the patient in front of me in a chair to make the injection in ambulatory cases with good heart action; but, if the patient is weak or bedfast, the patient must lie down for treatment.

As a rule, I do not find organic heart trouble a contraindication, especially broken compensation following rheumatism. Sodium iodide and sodium salicylate improve these cases, still, I put the patients at rest for several days before giving an injection.

The tincture of iodine should be wiped off, with a little alcohol, after injection, if it causes any irritation. If it causes no trouble, it may be left on. I have made several thousand intravenous injections and have never had an infection and no reactions except in a few neoarsphenamine patients that had failed to take a purgative the night before, as instructed. I can not remember more than a half dozen reactions from this preparation.

Intravenous medication is not a cure-all but a shortcut to cure when the same drugs are indicated per os.

GEYER C. WOOD.

Grady, Ark.

APHASIA FOLLOWING OPERATION FOR MASTOIDITIS

One of the most interesting speech defects cases among the disabled veterans of the World War is that of Private Henry J. Koopman who suffered complete motor and sensory aphasia following an operation for mastoiditis.

His hospital record showed that, before the operation, Koopman spoke English without an accent. After the operation, he could utter a few German phrases, but no English. He could neither name nor locate the parts of his body.

Koopman's training was started at General Hospital 11, Cape May, N. J., on July 28, 1918, under an expert teacher. In two days, he could count to four. In one week,

he could do simple addition. In two weeks, he knew three parts of his body, and could speak one connected sentence. In three weeks, he could locate all the parts of his body and began left-hand writing to develop the speech centers on the right side of his brain, to take the place of those destroyed on the right side.

In September, he could shave himself, tell time, and work with fractions. In November, he could write with both hands. It was discovered that his previous education had been limited but that he was a remarkable card player and a beautiful dancer.

In December, he could read simple sentences, write a short letter, spell easy words, measure and calculate. His speech is broken but intelligible. He can talk for twenty minutes without stopping.

Koopman has now received his discharge from the army, so that the matter of his speech training comes under the Federal Board of Vocational Education. The Board's special agent for cases having hearing and speech disabilities has arranged for Koopman to have training under the same expert teacher with whom he started training at Cape May.

GONORRHEA IN THE CITY AND IN THE COUNTRY

Is gonorrhea, as we meet it in the country, different from that which you find in the city? On reading medical journals, one might be led to think it a terrible thing to cure. Yet, I do not find it difficult and, indeed, I never had a case that I could not cure in short order—in from fifteen to twenty days at the longest.

Just recently, a young man, not a resident of our town, came to me, saying that, on reaching here, he had asked for the oldest physician in the place. He told me that he was in a terrible fix, was to be married in two weeks and had a severe attack of gonorrhea. He had twice been to consult a specialist in Washington, paying him \$25.00 on each occasion, though without being benefitted in the least.

Twelve days later, he was back, informing me that he was well. I then referred him to another man for microscopic examination of the urethral discharge, who advised him that he might get married. I saw this man afterward and he told me that he

was definitely cured. Nor has his wife had any pathological discharge, at any time.

I have only one remedy, namely, a tablet which is made up as follows:

Methylene blue	gr. 1
Cubeb	gr. 1/2
Santal oil	m. 1/2
Copaiba	gr. 1/2
Extr. Kava Kava	gr. 1/4
M. et ft pil.	

Sig.: From 4 to 6 such pills are to be taken during the day.

I order my patients to use urethral injections twice daily with 4 antiseptic wafers dissolved in twelve ounces of water. In case of painful erections, 10 grains of camphor in capsules, three times daily. The dietetic orders are strict. Coffee and tea are interdicted as are alcoholics.

We may have a different kind of a disease in the country. However, I have been positively successful with my treatment, even in cases where others had failed.

W. S. CLINE.

Woodstock, Va.

[The present writer suspects that the severity and obstinacy of a case of gonorrhea whether in city or in country depends largely upon the patient; of course, providing that the treatment ordered is suitable. If the patient obeys orders strictly, if he does not indulge in the slightest indiscretion, does nothing in the way of eating and drinking, exercise, and so on, that his physician has forbidden, gonorrhea is not so terribly difficult to treat in those cases in which the physician is consulted during the onset or in the first few days. Later, when the gonococci have localized in the submucous tissues, the difficulty becomes greater. Still, often, a faithful adherence to directions, both in letter and in spirit, will be productive of good results.

We should like to know whether other physicians have asked the question as to whether gonorrhea in the city is more virulent, more severe than the country variety. It may be that certain conditions tend to make it so. What do the readers of CLINICAL MEDICINE say?—ED.]

GOOD LOCATIONS FOR PHYSICIANS

Dr. H. M. Leeds, St. Francisville, Ill., wants to sell his residence as he is desirous of retiring from practice. He has an eleven-room house, with cellar, cistern, barn used for garage. The house stands on Main street

of St. Francisville, a town of 1,500; electric lights; five churches; two banks; good high-school; two grain elevators; good hard roads and more being built. It is situated in the oil field of Lawrence County, ten miles south of Vincennes, Ind. Good farming country. Large territory on both sides of Wabash river; two ferries.

This is an A-No.-1 place for a young and energetic man to work into good practice. The price for property is \$2,500. The doctor is past sixty-five and would like to get away inside of ninety days.

Dr. M. Shadid, Carter, Okla., wants a partner, a hustler. Work excessive. Income \$15,000 a year.

Dr. R. P. Donovan, Alvin, Illinois, has been in the present location for eleven years and, now, desires to take up practice in the city.

Alvin is on two railroads; population three hundred and fifty; with electric lights; two churches, fine high school; roads are so that one can use a car the year round; is on a pavement that connects with all the towns in Vermillion county. Half a mile of town is a summer resort.

The doctor offers a seven-room bungalow, built four years ago, and considered the finest in town. It is situated in the best part of town. Two rooms are fitted for office. He holds two railroad appointments that can be transferred. The doctor does the principal part of the work in this territory and will introduce his successor. Suitable terms to a hustler. Price \$3,500.

These are the only opportunities that have come to our knowledge since publishing those enumerated in the June issue of CLINICAL MEDICINE (p. 410) and in the May issue (p. 339). We believe that this service will prove to the advantage of many physicians and are holding ourselves in readiness to continue it as long as we are informed of good opportunities.

EVACUATING THE HOSPITAL AT OMSK

Details of the evacuation of the American Red Cross hospital at Omsk, last fall, in face of the advancing Bolsheviks, have just come from Siberia. Hampered by a disrupted transportation system, severe winter weather, and countless other difficulties, the evacuation of the eight hundred and forty patients nevertheless was accomplished without a hitch and in less than twenty-four hours' notice.

Early in the summer, the advance of the Soviet forces menaced the safety of the city, and all the American women who were serving as nurses in the hospital were sent east. The successes of the Kolchak

troops, in the early fall, however, seemed to give assurance of safety and plans for the return of the nurses were under way when, suddenly, one night, Major Martin was given warning that all the patients must be evacuated next day.

Assurance was given Major Martin that a boat would be sent to the hospital wharf to convey the patients to the Vietka, and that a sanitary train of fifty cars would be ready when needed. But, morning found the river frozen, making the removal of so great a number of patients exceedingly difficult. What was worse, only seventeen cars were available, and these were so unsanitary that they were declined as unfit for service.

Yet, the cars had to be used. Prison labor, hastily set to work, transformed them into a semblance of comfort by the installation of bunks, sanitary arrangements and cooking facilities. Moreover, a heavy guard had to be provided, since it was regarded as permissible to commandeer cars, even those to be used in evacuating the wounded.

Late the afternoon of the day following the order to evacuate, the removal of the two hundred severely-wounded patients began. By boat from the hospital to the city, thence to the Cadetsky Corpus hospital, a three-quarters-of-a-mile journey, for which wagons had been promised. But, the wagons did not appear, and attendants were obliged to carry all the patients on stretchers. They walked back and forth all night, completing the last trip at six the following morning.

The ill and slightly wounded patients were transferred by train. This was one of the most difficult feats accomplished by the Red Cross in Siberia. The river was frozen, so that wagons had to be used for the trip from the hospital to the Vietka station. Wagons, however, were virtually unobtainable. Through the efforts of Admiral Richter, of the police authorities and of the farmers in the vicinity, fifty droshkys and fifty small peasant carts were collected, and the work of moving the patients, personnel and equipment was at

last under way. It was not completed, however, until three days later.

The closing of the Omsk hospital ended a period of service that has been a notable achievement from the first day to the last. In nine months, over six thousand patients were treated. The death rate was less than 3½ percent. The maximum bed capacity was 1,060, and the weekly admittance varied from 16, the lowest, to 378, when the Siberian army made a stand following the retreat west of Petropavlovsk. Dr. C. M. Lee of Shanghai was in charge of the hospital from its opening, the first of January, till May eleventh. He was succeeded by Dr. F. E. Dilley, also of Shanghai, who later resigned, to be followed by Dr. A. F. Jackson of Hawaii. Doctor Jackson remained in charge until the strain of the work necessitated the appointment of Major Martin of New York.

The building was particularly well adapted for hospital purposes. The first floor was occupied by the offices, medical wards and living quarters of the Russian nurses; the second and third housed the surgical wards, isolation ward, dressing rooms, drug room, operating room and a few private rooms reserved for the use of the American personnel and officers of the Allied Mission. The basement contained, in addition to the bathing plant, bakery and kitchen, a veritable village of industries—carpenter shop, tinsmith, plumber, tailor, shoemaker, instrument repairer, basket and brush makers. The sanitars, workmen and artisans were Germans, Austrians and Hungarians from the prison camps who, under the direction of the Czechs, made faithful workmen, interested in their work and appreciative of the difference in living conditions between the prison barracks from which they came and their quarters with the Red Cross.

Besides all this, the hospital housed the Ufa Bacteriological Institute, which obtained quarters there when it was obliged to evacuate Ufa. This institute produced large quantities of vaccines.



Just Among Friends

A DEPARTMENT OF GOOD MEDICINE AND GOOD CHEER FOR THE WAYFARING DOCTOR

Conducted by GEORGE F. BUTLER, A. M., M. D.

The Art of Right Living

Common-Sense Comments on Health, Happiness and Longevity

6. Vacations

TAKE a vacation! When I think of all the good times there are in this world and which you and I might be in if only we had the good sense to avail ourselves of our opportunities, I am inclined to think that we are not to be commiserated so much, after all, if we fail to have our good time oftener. Don't think that you haven't time to take a short vacation. You have. Don't wait for the opportunity to present itself. Take the opportunity. If one sat on shore and waited for some trig little boat from off the sea to sail up to the strand, draw one into it by some method of affinity unknown to science and carry one off to Spain, don't you think one would grow gray-headed and wan before the voyage commenced? It is just as silly and just as hopeless to wait for some full-rigged opportunity to draw near and force you on board. Without some effort on your part, you never will set sail. You never will go anywhere if you do not arise and go. Leave your work for a while; leave things undone if need be. Bother the duties! Shoo the obligations! Just you get up and go! That's all.

What one needs to be well and happy is out-of-door exercise, to get in touch with Nature and forget oneself. The open air is not only a cure for the body but for the mind as well. Nature is not only a fairy godmother, not only a revelation of beauty, but a guide and a teacher. We are told that Buddha went into the forest to look for truth. He left mankind and went to Nature for help. And, you will be helped

spiritually and physically by going into God's sanatorium of out-of-doors.

All nature teems with joy and peace; these summer days, seeming to laugh and chatter and whisper to us of health and happiness. There is motion in the ground. Each rill and trunk of tree and stem of flower and blade of grass feels the thrill of life. Health and energy are abroad in the land. And, yet, some of us are discontented and feel ourselves misused because we happen to be a little short of money now and then, and it is hard to find the plums in our pudding; or, we are sick or think we are, and are despondent and hopeless. These thoughts are only the transient reign of winter in the heart and are due largely to the need of a change—a vacation. Get out of doors! Rejoice with the trees, the flowers and the birds. It is an exhilarating, healthful and sublime uplift that they will give you if you will but go to them.

What has not quitting the crowded city for a change of air effected! How many has it not snatched from the jaws of death! How many has it not saved from sickness! How many consumptives, melancholy hypochondriacs and wan and harassed dyspeptics has it not restored to former healthfulness and joy. Go to Nature! She will strengthen your bodies, uplift your souls, and help you to forget how tired and worn and troubled you are. And, then, the slips of health and contentment you will gather you should plant in the neglected garden of your soul. "Remember, it is not always youth time any more than it is always May. Grafts and shoots that grow

readily in spring will take no root in bleak November. Cultivate your smiles and your simple services of love now, and old age shall be but an afternoon trellis, hung deep with perfumed roses as beautiful in the sunset glow as in the dawn."

Learn how to live!

The way of health lies through obedience to law, and the discernment of laws determining health lies in man's recognition of the fact that he is a complex being, a conscious spark of divinity embodied in matter and that no part of his nature can be neglected or ignored without making the whole man sick.

We are walking along the paths of a very beautiful world. It is a perpetual panorama, passing by us every day; and we shall add greatly to the happiness of life, and to the elevation and purification of all our faculties, if we acquire the habit of working for its beauties.

It is our duty so to order our habits with reference to the maintenance of a high degree of effectiveness, so to utilize all means, material and spiritual, which make for soundness, that we shall be up to the mark in physical health.

Some of us, perhaps, at the present day do not sufficiently appreciate the importance of leisure and securing opportunities for meditation. We make life too much of a rush and a bustle; even our games we turn into a business.

Health is free—recreation and a contented, happy disposition will help to get it. The whole Out-of-Doors is charged with oxygen—it is all yours.

In our moments of tête-à-tête with the infinite, how different life looks. How all that usually occupies and excites us becomes suddenly puerile, frivolous, vain.

7. Habits

MAN is the result of his education, and his education is only the sum of his habits, or those things which he has habitually or repeatedly done. In a certain sense, the old saying: "Line upon line; precept

upon precept" is founded on correct principles. Repetition, continued, results in becoming a part of the man. This is true not only in an intellectual and moral sense, but is even more true in our physical nature. The sum of healthy exercise will make a healthy muscular system. The spasmodic, irregular and unwholesome exercise only can result in a lack of formation of muscular strength and muscular habits. What a man is, tells the story of what his habits have been, and, what his habits are, determines what he is to be. This is true with all the voluntary functions of the body and is indirectly true with the involuntary functions. The physical tendencies of childhood and youth are rarely ever changed throughout life; even later, we are constantly falling into ways which follow us in all our future career. Not only are physical habits thus established, but, the operation of the mind has the same tendency. We think a thought and it is considered trifling; yet it returns and sometimes suggests itself a third time to us. In his way, the same thoughts recurs over and over in the nerve centers. Without our willing it, we find it present in the passive portions of the mental system until it finally becomes a habit of the mind. We are ever making ourselves over by our thoughts and deeds. We can make every action of our life, every thought of our mind effectual if we will. We must devote a good deal of thought to the ought-to-be, the shall-be, and remember that, as we think, as we work, so shall be the result.

Many of the ideas that we have inherited help to narrow and cramp the inner life. We must change our habits of thought. The proper adjustment to our life and environment and the daily effort to gain one's poise and self-control is effective in proportion to the clearness and strength of our thought and the confidence we put into it. Even happiness itself may become habitual. One may acquire the habit of looking upon the bloomy side. Thought habit is character. You are now, in mind, body and estate, just what previous thinking has made you. Habit is a force to be harnessed. Every repetition of an ideal makes its impression deeper. There is more and more of its quality lodged in the subconscious mind. There it lives. Through reiteration, the higher and purer thought develops and strengthens its corresponding brain cells.

Its physical functioning-ground thereby becomes more responsive, fertile and easier to use. Through reciprocity, there is a mutual stimulation. Like capital, habit earns interest.

Many of the noblest qualities of life never can have a richer opportunity for cultivation than during illness. Patience, endurance, cheerfulness, forgetfulness of self, thoughtfulness of others, when exercised and cultivated, will yield good returns, "like a medicine." People who are predisposed to nervous disorders should get into the habit of living simply. They should mould their lives according to some philosophy or religion. They should develop a fixed routine to free them from the jars and strains of constant change. As an enslaver of body and brain, the habit-way is most disadvantageous to us. If we become addicted to bad habits, our health becomes impaired and we age early. We must overcome bad habits, we must get out of unwholesome ruts. All evil habits may be destroyed by the man who really desires to master them. We must keep the right idea before the mind—either that of overcoming the habit, or that of the consequence of yielding. It's up to us!

Learn How To Live.

So far as feelings are concerned, live only in the present. The past is done for; it is not half so bad as you suppose. Verify this by recalling its pleasures and successes alone, resolutely ignoring its sadness and failures. Live in the present of a sunny mood. Anticipate nothing but good in the future.

Avoid all pursuits which enslave the mind or keep it in a fever of unwholesome excitement, or discouragement and depression. Do not live alone, nor become pessimistic, nor sour; but cultivate joyousness and seek that perfection of nature which is within your reach.

We must make automatic and habitual, as early as possible, as many useful actions as we can, and we should guard against the growing into ways that are likely to be disadvantageous to us as we would guard against the plague.

We can not wholly change at once, but we can begin to look upon the bright side

of things and so fill the mind with cheerful affirmation and aspirations, that pessimistic thoughts will find no standing room.

Select thoughts of harmony, love, cheer, good-will, health, purity, and beauty, and, just in proportion as you hold them, they will displace and crowd out their opposites.

You should resolve to discover some good, some bright side, some pleasing element, in everything and in every situation. You must make this a real pursuit of your soul.

The real world in which one lives is his thought world and not the mere things that are about him. Just think of creating your own world!

It is a law that as much Will-power must be consciously expended in curing a habit as, unconsciously, has been employed in acquiring it.

8. Mental Habits

NO one escapes trouble, so, whatever may be your condition, you have no monopoly in suffering. You have your compensations. Don't whine and get the complaint habit. "Make the best of things." This homely phrase is, after all, the shibboleth of life. It is the faculty of seeing some good, of drawing some inspiration from the most hidden source, that makes life endurable, that glorifies it. Life is pleasant or unpleasant, hard or easy, according to the way you look at it, the way you think of life. Thoughts govern action and he who governs his thoughts is master of his destiny. Destiny is not about you but within you. Healthful, hopeful, optimistic thoughts are essential to strong minds and bodies.

Worry is one of the very bad mental habits; it injures beyond repair certain cells of the brain; thus, the brain being the nutrient center of the body, the other organs become gradually injured, and, when some disease of these organs or a combination of them arises, death finally ensues. Thus may the habit of worrying kill. Only too often, mental habits are morbid in their nature, and, consequently, cast a morbid influence upon the physical system over which they rule. Especially is this true when our minds are centered on the in-

voluntary functions of the body. A man who has his mind constantly upon his digestion will soon have indigestion. Nature purposes to run her own machinery. When we undertake to supplant it by human plans or artificial ways, we destroy the natural process and disease results.

Thinking of what is eaten during or after meals is a dangerous practice; if continued until it become a habit, it will be a greater obstacle in the way of curing any disease of the stomach than any other factor.

A person who suffers pain, and suffers his mind to revert to it constantly, establishes a nerve habit of pain. The sense of pain grows while the capacity to endure pain lessens. There can be no greater calamity to chronic invalids than that they should get together and tell their ailments to each other. Such a course is but nursing disease and rendering it less curable. It should always be the aim to cultivate reverse habits of expression to those we feel during illness. Sickness is not the least of the opportunities in life. It is the time for reflection. It does not come by accident, usually, but is the effect of a cause. Reason and reflect upon the cause rather than the effect. The break in the wrong modes of living, that is present, affords the best opportunity to change the bad mental habits and start in better ways.

Many people go into society just for the purpose of telling their aches and pains and troubles. Such people should be sent to the pest house and kept in quarantine until they are cured; they are as untouched as by the myriad happy influences of life as the mole is by the light of a star or the flash of a comet. They say "No one is as badly off as I am." Their salutation is always one that plunges at once into the condition of the liver, stomach, nerves or some bodily ailment. Forget it! Don't get the habit of talking about sickness with every one you meet. Can't you find a topic of conversation more elevating than that of your aches and pains, and troubles?

Cheerfulness is to the body what sunshine is to vegetation. Hence, with a person who is in search of health, the essential thing to do is, to cultivate cheerfulness, hopefulness, courage, and not allow one's self to think of his ills, much less to talk

about them, except to those who may find it necessary to know them in order to properly direct his life.

Learn How to Live!

There is enough in the world to complain about and find fault with, if you have the disposition. You often travel on a hard and uneven road, but with a cheerful spirit you may walk therein with great comfort and come to the end of your journey in peace.

The ordinary healthy man is quite unconscious of the existence of his own physical mechanism. It is the last thing he thinks about. This is partly due to the fact that he is healthy; however, his health in its turn is partly due to the fact that he does not worry about his interior.

Habit is the approximation of the animal system to the organic. It is a confession of failure in the highest function of being, which involves a perpetual determination, in full view of all existing circumstances.

However uncomfortable and forlorn you may be, don't add to your own and the world's misery by fretting. There never yet was a sorrow that could not be lived down; there never yet was one that could be cured by fretting or worry.

Man becomes a slave to his constantly repeated acts. In spite of the protests of his weakened will, the trained nerves continue to repeat the acts even when the doer abhors them. What he at first chooses, at last compels.

To be perpetually longing and impatiently desirous of anything, so that you cannot abstain from it, is to lose your liberty, and to become a slave to meat, drink or smoke.

Castor oil, family troubles, and physical and mental ills are far better taken in individual doses, and not administered on the communistic plan.

You must attack your bad habit of worrying as you would a disease. It is something to be overcome, an infirmity that you are to get rid of.



Among the Books

BISHOP: "NARCOTIC DRUG PROBLEM"

The Narcotic Drug Problem. By Ernest S. Bishop, M. D. New York: The MacMillan Company. 1920. Price \$1.50.

Here is a book that is to be recommended cordially to physicians, not only for casual reading but for close and careful study which the Reviewer desires to urge insistently upon all his readers. The author is one of those men who, in opposition to prevailing medical and lay opinion, refused to subscribe to the view that "drug addiction," as such, indicates a condition of moral weakness or, worse still, moral depravity. Narcotic-drug addicts, the author has realized for years, must be considered as sick persons, even more than alcoholics, and he demonstrated clearly that drug addiction itself is a distressing malady which gives rise to atrocious and indescribable suffering as soon as an attempt is made to withdrawing the accustomed narcotic, while, in the vast majority of cases, it does not even possess the supposed saving quality of pleasurable sensations induced by the "indulgence."

It can not be gainsaid that the narcotic-drug problem is of vital importance in the United States. Unfortunately, the legislative regulation of the traffic in habit-forming drugs, which has been in force for a few years, not only has failed, so far, to regulate those abuses that are in need of it but has made the legitimate employment of the drugs under its ban unduly difficult. Further, this regulation fails to take into proper consideration the imperative needs of those victims of addiction disease who might, and should, be benefited from suitable treatment.

The trouble is, that the problem of drug addiction still is viewed from an entirely wrong premise and that even physicians are woefully ignorant concerning the actual nature of this affliction.

Here, then, there is not only much room for improvement but there exists a crying

and urgent need of betterment. First of all, it must be realized that narcotic-drug addiction, that is to say, addiction to opium and its derivatives, can exist without producing any mental or moral deterioration in its victims. Indeed, there are many addicts leading useful and industrious lives in all classes of society, in the professions, in the trades, even in the legislatures and among scientists, who have determined an adequate balance through which they can maintain their working capacity together with an equilibrium of physical and mental comfort and continue, often, without anybody being aware of the fact that they take opiates.

On the other hand, addiction to some of the other habit-forming drugs, notably cocaine, which is indulged in more by the mentally and morally deficient denizens of the underworld, undoubtedly, tends to increase their deterioration.

These and many other considerations suggest themselves on reading Doctor Bishop's book. We can not emphasize too strongly the necessity, on the part of every general practitioner, that he should acquire this little volume which not only is full of useful and instructive information but is dictated by a deep familiarity with the problem and an experience of years in the successful treatment of drug addiction.

PATTEE: "PRACTICAL DIETETICS"

Practical Dietetics, With Reference to Diet in Health and Disease. By Alida Frances Pattee. Thirteenth edition revised. A. F. Pattee, Publisher, Mount Vernon, New York. 1920. Price \$2.25.

Recognizing the great importance of not permitting her textbook on practical dietetics to become stale, or out of date, its author subjects it to frequent revisions which, indeed, are issued annually. Naturally, she takes pride in the fact that 168,000 copies of this work are in actual use and assures us that the new, thirteenth, edition has been revised so as to incor-

porate the latest results of research in dietetics.

With the book itself, there is given a pamphlet containing the dietetics' standard curriculum for schools of nursing, as prepared by the National League of Nursing Education; also the dietetic requirements of the various state boards of examiners of nurses, and their examination questions. These outlines will prove of assistance to the dietitian in arranging a course for study for the nurse and will prove suggestive to the nurse in preparing for her state examination.

The Reviewer can only add that he has frequently occasion to consult Pattee's "Practical Dietetics" and always does so with great satisfaction.

GRIFFITH: "DISEASES OF INFANTS AND CHILDREN"

The Diseases of Infants and children. By J. P. Crozer Griffith, M. D., Ph. D. In two volumes. With 436 illustrations. Philadelphia: W. B. Saunders Company. 1919. Price \$16.00.

This most readable and scholarly review of the subject, while almost cyclopedic in character, is devoid of unessential details and tenuous theories. It is quite evident that the author has not only an academic and institutional knowledge of pediatrics but has learned from experience what it means to treat the average child in the average home. How to examine the patient, how to arrive at a correct diagnosis and how to satisfactorily and rationally treat the pathological conditions discovered, alike receive painstaking attention and the average man with ordinary equipment will not turn from the volume with a sigh and the wish that textbook writers would theorize less and extend more practical information.

Griffith is scientific, up-to-the-minute and really helpful. Moreover, his style is distinctly pleasing and—most refreshing thing of all—he shows no tendency toward therapeutic nihilism. Indeed, in opening the chapter, "The Therapeutics of Infancy and Childhood," he cogently states that at this period of life "all the tendencies are towards recovery and the system generally responds well to remedial measures. Drugs, when given, should be in sufficient strength to do good but never harm and should not be administered at all unless distinctly indicated. Underdosing is futile, overdosing

harmful." Again, attention is called to the fact that "the child does not react toward remedial measures merely as a small-sized man would do but has its own susceptibilities." These are basal facts which this Reviewer has long advocated and it is distinctly pleasing to find them thus strongly endorsed.

The feeding and development of infants receives more than usual attention and some most informative charts are presented, which will enable the busy practitioner to readily keep track of the progress of his own little patients.

The volumes are profusely and well illustrated and contain some forty colored plates. Volume 1 deals with general subjects: hygiene, feeding and diet; the newborn; infectious diseases; general and nutritional diseases and the digestive system. Vol. 2 treats of respiratory, circulatory, urinary and nervous diseases; disorders of the muscles, bones, joints, blood, spleen, ductless glands, skin, eye and ear. A special chapter is devoted to consideration of the internal secretions.

Altogether, Griffith's work should meet the approval alike of the pediatrician with a well-stocked library and the ordinary practitioner who has to depend upon a single textbook, not alone for assistance in time of doubt or difficulty, but information regarding the more recent advances in medical practice.

HARE: "DIAGNOSIS"

Symptoms of the Diagnosis of Disease. By Hobart Amory Hare, M. D., B. Sc. Eighth Edition, Thoroughly Revised. Illustrated. Philadelphia and New York: Lea and Febiger. 1920. Price \$6.00.

Doctor Hare's textbook on symptoms in the diagnosis of disease, which has just appeared in its eighth edition, is essentially a guide for the practitioner, laying special emphasis on symptomatology and being devoted to a plan whereby a recognition of symptoms will lead the physician to a diagnosis.

In accordance with this procedure, the subject of laboratory diagnosis, important as it is, has been subordinated and placed in the position that it rightly should hold. It can not be denied that laboratory diagnosis frequently diverts attention from the careful study of the patient himself; while it should be utilized for the purpose

of completing and confirming the results of the individual study of the patient.

The plan followed in this work is, to discuss the various organs and functions of the body, reviewing their normal aspects and then describing the different deviations from the normal. In this way, a close study of this manual will enable the student to recognize symptoms as they present themselves in the patients, either in the office or at the bedside. The general as also the special discussions, of course, are excellent, and Doctor Hare's textbook on diagnosis remains, as it has been for years, a dependable and useful guide on the subject that it treats.

JOSLIN: "DIABETIC MANUAL"

A Diabetic Manual for the Mutual Use of Doctors and Patient. By Elliott P. Joslin, M. D. Illustrated. Second Edition. Thoroughly Revised. Philadelphia and New York: Lea and Febiger. 1919. Price \$1.75.

The first edition of this manual was announced in *CLINICAL MEDICINE* for 1918 (p. 796.) The present edition possesses to even a greater degree all the valuable characteristics of the first. It should be used for careful study on the part of the physician and, just as much, it serves for the instruction of the patient.

Doctor Joslin rightly points out the importance of the diabetic patient's being instructed with great care as regards those phases in his disease in which he can be of assistance to his attendant in the treatment and management of the malady. In this respect, Joslin's manual is a guide that may be followed confidently.

HESS: "INFANT FEEDING"

Principles and Practice of Infant Feeding. By Julius H. Hess, M. D. Illustrated. Second Revised Edition. Philadelphia: F. A. Davis Company, Publisher. 1919. Price \$2.50.

This little manual, which has just appeared in a second edition, was written with the object to place in the hands of teachers and students a manual on infant feeding to be used in preparation for clinical conferences. It is made concise since the many excellent works on the same subject are too voluminous for the purpose. For the

teaching of nurses, those chapters are suitable dealing with the nursing care of premature healthy and sick infants, the feeding of breast fed and artificially fed healthy babies and the preparation of infants' foods and diets.

SHERWOOD-DUNN: "REGIONAL ANESTHESIA"

Regional Anesthesia (Victor Pauchet's Technique). By B. Sherwood-Dunn, M. D. With 224 Figures in the Text. Philadelphia: F. A. Davis Company, Publisher. 1920. Price \$3.50.

The author (perhaps, more properly, the editor) of this book, Doctor Sherwood-Dunn, is well known to the readers of *CLINICAL MEDICINE* as the writer of our "Letters From France" which have given us much information regarding conditions in that war-trodden country.

The present volume deals with regional anesthesia according to Prof. Victor Pauchet, in contrast to local anesthesia which has long been advocated, more particularly by Professor Reclus, of Paris, and is being employed widely. As is well known, in regional anesthesia, the anesthetic is applied at the point of the origin of the nerve or along the trunk near the point of origin, so that the whole region supplied by the nerve and its branches is anesthetized. Naturally, it is the method of selection for many operations. While the methods of local and of regional anesthesia are constantly applied in his country, both by surgeons and by dentists, it will be interesting to investigate the method of our French colleagues, and Doctor Dunn deserves credit for having made the information available to English speaking medical men.

PEDERSEN: "UROLOGY"

A Text-Book of Urology in Men, Women and Children, Including Urinary and Sexual Infections, Urethroscopy and Cystoscopy. By Victor Cox Pedersen, A. M., M. D. Illustrated. Philadelphia and New York: Lea and Febiger. 1919. Price \$7.00.

This recent textbook of urology is of special interest in view of the increasing importance that is accorded to the measures taken by the government, by various societies, by the churches and by many others to curtail the threatening and serious

prevalence of venereal diseases. The work is rather exhaustive in its discussion of urethritis, both specific and nonspecific, and probably will be of more interest to the specialist, although the general practitioner would do well to acquire all possible information on the important subject treated therein.

MACCABE: "HUMAN LIFE"

Human Life and How It May Be Prolonged to 120 Years. By Brevet Lieut.-Col. F. F. MacCabe, M. D. London: Grant Richards. 1919. Price \$1.50.

This is a popular discussion of hygienic living. In the chapter entitled "How Man Can Live to the Age of 120 Years", the author claims that man is the only animal that makes a cesspool of his large intestine by retaining the contents of it till they ferment. Therefore, like many others, he finds here the most potent reason for the relatively short life alleged to man. He sums up the doctrine of health in these few words: A content mind, a well nourished body, an empty colon, and clean surroundings.

There is much commonsense instruction and discussion in this volume. Whether anybody wants to live for 120 years, the Reviewer leaves for each one to decide.

LIPSHUTZ: "COMPEND OF SURGERY"

Compend of Surgery for Students and Physicians. By Benjamin Lipshutz, M. D. With 185 Illustrations. Philadelphia: P. Blakiston's Son & Co. 1919. Price \$1.50.

"EPIDEMICS"

Epidemics. How to Meet Them. Contributed and Edited by Louis A. Hansen; George H. Heald, M. D., Daniel H. Kress, M. D., Wells A. Ruble, M. D., Martin M. Martinson, M. D. Washington: Review and Herald Publishing Association. 1919. Price 25 cents.

Here is a popular little manual that physicians may safely put into the hands of their mothers and fathers—we don't mean their own, but, those of their children-, or child-patients. It contains a lot of sensi-

ble suggestions on health care and health preservation. It teaches how to prevent illness, more especially that due to bacterial infection. Also, there are some useful suggestions for taking care of the sick, and some excellent rules for feeding babies. Altogether, we have liked the little pamphlet and can recommend it cordially.

ASCARIS LUMBRICOIDES

Observations on the Life History of Ascaris Lumbricooides. By B. H. Ransom, Chief, and W. D. Foster, Junior Zoologist, Zoological Division. United States Department of Agriculture, Bulletin No. 817. May 12, 1920. Copies of this pamphlet may be procured from the Superintendent of Documents, Government Printing Office, Washington, D. C., at 10 cents each.

This pamphlet contains the results of some instructive investigations and experiments about ascaris lumbricooides which, the authors declare, is probably identical with the ascaris of the pig (*A. suum*). One striking point of interest is, that the ascaris eggs are remarkably resistent to the action of chemical reagents, being insoluble even in fairly strong acid solution. It is for this reason that they will pass unharmed through the stomach. The little pamphlet is well worth reading, in view of the fact that children often enough become infested with these uncomfortable parasites.

GLEASON: "NOSE, THROAT, AND EAR"

A Manual of Diseases of the Nose, Throat, and Ear. By E. B. Gleason, M. D., LL.D. Fourth Edition. Thoroughly Revised. Philadelphia: W. B. Saunders Company. 1918. Price \$3.00.

MALONEY: "LOCOMOTOR ATAXIA"

Locomotor Ataxia (Tabes Dorsalis). An Introduction to the Study and Treatment of Nervous Diseases, For Students and Practitioners. By William J. M. A. Maloney, M. D. (Edin.). Illustrated. New York: D. Appleton and Company. 1918. Price \$3.50.

Condensed Queries Answered

While the editors make replies to these queries as they are able, they are very far from wishing to monopolize the stage and would be pleased to hear from any reader who can furnish further and better information. Moreover, we would urge those seeking advice to report their results, whether good or bad. In all cases please give the number of the query when writing anything concerning it. Positively no attention paid to anonymous letters.

Queries

QUERY 6502.—“Acute Pulmonary Tuberculosis.” R. M. P., Missouri, reports the case of “a married woman, age twenty-three. Mother of three children, one dead, the other two healthy. Mother living, healthy. Father died of tuberculosis. Patient always has been fairly healthy until some time in January, 1920, when she had “flu,” followed by pneumonia. She never has been well since, in fact, she never has gotten up except for a few days and, then, against orders. She is now about three months pregnant.

“To make a long story short; she had quite a consolidated area in left lung which has never cleared up; runs fever temperature every afternoon, as high as 102° F. In the morning, the temperature is subnormal. Pulse is usually at about 120. There is an aortic regurgitation.

“The patient claims to have had no trouble or sickness before ‘flu,’ in January. She has been on digitalis, 20 minimis, t. i. d., and had an ice-bag applied. As you can see, she is in bad shape.

“X-ray picture of chest showed a consolidated area in the left lung. Heart hypertrophied. She coughs some and, at times, expectorates freely. Lately, some blood was coughed up. Though the patient spent some time in the hospital, I do not think that her sputum was examined.

“I might add that I have a case doing the same in a boy 11 years of age.”

This writer is greatly concerned about the unfortunate woman, whose condition you describe.

We have: a married woman, twenty-three years old, who has borne three children. While her health has been fair until last January, it can not have been robust.

In any event, an attack of influenza complicated with pneumonia was not fully recovered from, and her chances for recovery were depreciated to the vanishing point by the fact that she became pregnant again shortly after the attack of pneumonia.

This is one of the things that make one want to curse and break up a few things. Here is that woman, just getting over an attack of the “flu” and pneumonia. Weak, we take it, hardly able to move about, and, then, she becomes impregnated and the result is about as serious as can be.

Anyway, “to make a long story short,” as you say, there is a consolidated area in the left lung, confirmed by x-ray examination; there is an afternoon temperature rise to 102° F., subnormal temperature in the morning; pulse rate of 120; aortic regurgitation; heart hypertrophied, as a natural consequence of excessive strain. Further, there is some cough, with occasional free expectoration. Lately, there has been bloody expectoration.

If the sputum were to be examined, you would, in all probability, find tubercle bacilli. At any rate, the symptoms, together with the physical signs, are those of acute tuberculosis of the lungs. In all probability, you will witness an acute miliary dissemination, and the fatal outcome is inevitable.

If this woman were not pregnant, there might be some chance of arresting the tuberculous process but, under the circumstances, we are afraid to give you any hope whatever. Indeed, we feel certain that the progress of the disease will be rapid and that a month or two at the most will tell the story.

Of course, it would be criminal to fold your hands and say, nothing can be done.

Very properly, you desire to do *something* for this poor woman, even though, in your mind, you may feel that all effort will be in vain.

First of all, then, institute open-air treatment, that is, have the patient in bed on a screened porch, day and night, except during inclement weather. We take it that Silex, Mo., is in a favorable location climatically and that the weather is milder in your region than it is in Chicago, at the present time. It goes without saying that this patient must be kept in bed constantly and be made as comfortable as possible, even if it necessitates having two beds on the porch and changing from one to the other, occasionally. Sponging the body, using witchhazel, or something of that sort, to avoid bed sores and to increase the action of the skin will be agreeable to her. Also, Epsom-salt spongings (tablespoonful to the quart of water) are beneficial.

To stimulate the appetite, some mild bitter tonic might be given. One of this writer's favorite prescriptions is:

Tincture of *nux vomica* 5 drops
Comp. tincture of gentian 10 drops
Syrup of ginger 10 drops
Elixir Lactopeptine to make 1 teaspoonful.
Such a prescription can be written for three or four ounces; the dose to be given an hour before mealtime.

You might try to enrich the blood and invigorate the entire system by hypodermic injections, twice a week, of iron citrate combined with nuclein. This is put up in 1-mil ampules, also in vials containing 20 mils (Cc.). Each mil contains 3-4 gr. of iron citrate, 1-64 gr. of sodium arsenate, 1-64 gr. strychnine sulphate, and 10 minimis of nuclein solution. In this case, an injection could be given twice a week, although it is the writer's custom to administer them but weekly.

Another treatment that may do good will be, calcium iodide combined with calcium guaiacolsulphonate in Locke's solution, also obtainable in 5-mil ampules. This preparation is not suitable for hypodermic injection but must be introduced intravenously. The drugs that are contained in it are clearly indicated in pulmonary tuberculosis and may be of decided benefit. Whether transfusion of blood, preferably from a donor who has been immunized against tuberculosis, would be of benefit, we are

not prepared to say. It might be tried, however.

As for food, let it be simple and easily digested. We believe that malted milk, perhaps mixed with chocolate, will be better than plain milk. Raw eggs should never be given, because they have been found indigestible. Soft-boiled eggs (three or four minutes), or poached eggs, are far better. Gruels, especially the old-fashioned oatmeal gruel, strained, is splendid; also vegetable soups, made according to the old recipe of Count Rumford, as outlined in CLINICAL MEDICINE for July 1919, p. 505. Ice cream is permissible, especially if it is home made. All sorts of fruits will be fine. Rice, cooked in various ways; but *not* the polished Japanese rice, since that contains only starch. Let it be the American-grown (Louisiana, California, or South Carolina).

It is not so much the variety and multiplicity of food as it is its quality that counts. Those articles of food that agree best with your patient will be most helpful to her.

The lady should be kept in as cheerful surroundings as possible. She should not be left alone. This does not mean that she should be talked to constantly. That would be a mistake. But, if she wants to talk, she must have somebody to talk to. If you have a good sensible woman who is a practical nurse, one who obeys orders and who has a large amount of human sympathy, in short, who is "a regular woman," put her on the case.

Of course, it is impossible in the space of one letter to exhaust all that might be said. We have made certain therapeutic and dietary suggestions because, naturally, you want to do all you can for this patient, even though the outlook is all but hopeless. We shall be much interested in receiving occasional reports from you and are anxious to be of service to you as much as possible; for, nothing would please us better than to prove a "bum prophet" in this particular case.

As to that little boy of eleven, whose lungs appeared to be about in the same condition as that of your woman patient, by all means, put him to bed as long as his temperature is over 100° F. Plenty of wholesome, simple food, lots of sleep, sponging the body with Epsom-salt solu-

tion, one tablespoonful to the quart, simple tonic treatment, preferably the iron citrate compound mentioned in the foregoing, and, perhaps, a preparation of malt extract with creosote, may help a whole lot. An excellent combination here would be: nuclein solution, mins. 10; guaiacol carbonate, gr. 1; iodized calcium, gr. 1-2, every three hours.

A colleague suggests causing abortion in this woman, and this writer would unhesitatingly endorse this suggestion were he not convinced that the tuberculous process here is *acute*. However, the procedure might be tried, even under existing circumstances. It goes without saying that you could do such a serious thing only after due consultation and with the assistance of other physicians.

QUERY 6503.—“Ardor Urinæ.” F. M. P., Illinois, has under treatment a female about forty years old, mother of two children, who complains of burning on passing urine and having to get up five or six times at night. Has had this trouble about seven years. Is better at times. He asks: “Would you advise vesical irrigation?”

With the limited clinical data at our disposal it is very difficult to advise you intelligently in the case of the woman whose urine we recently examined.

You state that she has burning on micturition and has to void five or six times a night. Under the circumstances, we would advise a very thorough vesical examination.

The acidity in this case is not high, but, as you are aware, quite a number of oxalates and many urates are present, together with bacilli coli and staphylococci, and, under such circumstances, of course, the possibility of the presence of a calculus must be considered, and, should relief not follow simple medication, the use of the cystoscope is to be recommended.

We would diet this patient carefully; cut off tea and coffee and have her drink some bland mucilaginous beverage. At the same time, administer arbutin and very small doses of hyoscyamine. She should also receive an autogenous bacterin.

In this connection, do not forget the extreme value of equisetum, alone or in combination with epigæa. The best preparations of these drugs are those listed by Lloyd Bros., and the dose in each case is

5 to 30 drops in water every two to six hours.

It is absolutely essential, of course, to recognize any gross abnormality of the pelvic viscera that may exist. It is just possible that this woman has a cystocele.

QUERY 6504.—“Sippy’s Alkalizing Powder.” J. L. O., Kansas, asks for the formula of “Doctor Sippy’s stomach powder for ulceration of the stomach. A physician here is using it with quite a degree of success. He has his druggist prepare it for his patients. It’s an alkaline powder and the directions are: a teaspoonful in solution every three hours.”

We believe that the powder you refer to as “Doctor Sippy’s stomach powder” is the combination of heavy calcined magnesia and sodium bicarbonate, which he recommends in his article on “Gastric and Duodenal Ulcer,” in Musser-Kelly’s “Practical Treatment.” Here he says: “The free acidity is usually controlled by feeding every hour and giving a powder containing 10 grains each of heavy calcined magnesia and sodium bicarbonate, alternating with a powder containing 10 grains of bismuth subcarbonate and 30 grains of sodium bicarbonate, midway between feedings.”

Sippy considers that magnesia has approximately four times the neutralizing power of sodium bicarbonate, and, as its neutralizing effect is prolonged, compared with that of sodium bicarbonate, it should be used between as many feedings as possible. However, its exclusive use as a neutralizer is prevented by its tendency to cause an uncomfortable diarrhea.

If you have access to Musser-Kelly’s work, you will find Doctor Sippy’s chapter on the treatment of gastric and duodenal ulcer well worth reading.

QUERY 6505.—“*Oxyuris Vernicularis*” J. H. H., Montana, has a patient, thirty years old, the mother of four children, who has always been healthy, except for some trouble through constipation.

The only thing that she complains of is pinworms, which trouble her greatly, especially after eating sweets of any kind. I have used calomel and santonin internally and have had her inject strong decoctions of quassia chips into the rectum, night and morning, retaining them for some time, but,

nothing has made a cure. They always return. Please tell me what to use."

In some adults the *oxyuris vermicularis* proves a particularly difficult parasite to dislodge.

Locally, you cannot use anything better than an infusion of quassia, though in certain intractable cases kerosene may be injected with advantage. The writer, in such instances, has found it desirable to administer quassoid in rather full doses internally and to give the quassia injection, being careful not to have the infusion too strong, with the patient in the right lateral-prone position. After giving such an injection, instruct the patient to flush the bowel thoroughly, say six to ten hours later, with an ordinary soapsuds enema.

In this connection, do not forget that garlic is an absolute specific and if the patient can be induced to eat one or more cloves of garlic daily for a week or two, she will almost positively get rid of the parasite.

In all these cases, however, treatment must be persistent and the patient made to understand that a single, or even two or three injections, will not destroy all the worms. She also should be made to realize that the female worm travels downward to deposit her eggs and, therefore, if any irritation is experienced, an ordinary enema of soap and water should be used at once to flush out these mature parasites.

QUERY 6506.—"Chlorosis." J. W., Oklahoma, writes: "I have a case of chlorosis in a young woman, twenty years of age, who hasn't menstruated for eighteen weeks. Her health is rapidly failing. Nux seems to shut off her breathing, no matter how small the dose or in what combination. What can you suggest, if anything, in the case? She is five feet nine inches, and weighs 115 pounds. Has been ill for two years, with scarcely any flow during that period."

We regret extremely that you did not give us a clearer idea of the conditions that obtain in this case.

As a matter of fact, chlorosis is a primary anemia, in which there is a marked reduction of hemoglobin, without any very great diminution in the red bloodcells.

Naturally, it is impossible in the scope of an ordinary communication to enter at length into the subject of blood changes

which occur. Not infrequently, hemoglobin is as low as twenty or thirty, though the red-bloodcell count may be quite or nearly normal. In the most severe cases, poikilocytosis is met with. Prolonged suppression of the menses is, of course, frequently observed.

Carefully instituted, early treatment may be regarded as specific, though relapses may occur. In all cases, autotoxemia exists, the liver is inactive, and, owing to the blood changes, the body chemistry is generally deranged.

We invariably order some such combination as cascara compound (Hinkle), or podophyllin, gr. 1-4, leptandroid, gr. 1-2, irisoid, gr. 1-4, *nux vomica*, extract, gr. 1-16, capsicum, powdered, gr. 1-3, at bedtime every night or every other night for a week, then every third night; and followed the next morning, with a saline. Before meals, xanthoxyloid, juglandoid and quassoid may be administered. With each meal, some such combination as: defibrinated blood, mins. 20, manganese peptonate, gr. 1-2, iron peptonate, gr. 1, nuclein solution, mins. 5, should be given.

When amenorrhea is a marked feature, potassium permanganate, gr. 1-4, may be given three times daily for two weeks prior to time the period should occur. Morning and night, the patient should be given aletroid, gr. 1-6, caulophylloid, gr. 1-6, and macrotoid, gr. 1-6. In some cases, injections of iron citrate compound with nuclein prove beneficial, and, of late, a combination of ovarian extract and corpus luteum, thyroid gland and pituitary body has been highly recommended.

It is unnecessary, of course, to point out the absolute necessity of placing these patients upon a carefully-selected, highly nutritious diet, insisting, upon deep breathing exercise in the open air, and frequent saline sponge baths. It would be well, we think, for you to have the blood and urine of this patient examined.

You do not say anything about the condition of the pelvic organs or about the past history. If you care to give us further clinical data, we shall be pleased to aid you to the best of our ability.

QUERY 6507.—"Keratitis." G. B. O., Montana, is treating an eight-year-old child ill with keratitis, due to inherited syphilis, and asks: "What is proper course of

treatment, i. e., are neoarsphenamine and gray oil indicated in hereditary syphilis and for children? If not, what is best treatment?"

Naturally, as syphilis is responsible for by far the greater number of cases of keratitis, the obvious treatment is, to give mercury and, heretofore, from 1 to 3 grains of gray powder daily (combined with $\frac{1}{4}$ to $\frac{1}{2}$ grain of powdered belladonna leaves, should it act too freely upon the bowel) has proven the best form in which the drug can be administered. In acute stages, the concurrent administration of iron may increase the photophobia, but, later, this tonic may be given with advantage.

Inunctions of mercury may or may not prove satisfactory. In hospitals and institutions, where a nurse can make the necessary applications, good results may be secured; in private practice, though, it is objectionable—first, because of the inunction itself, which may cause comment, and also because of the staining of the skin. Among the poorer classes, inunctions are unsatisfactory, for the additional reason that their use is not continued sufficiently and the rubbing is apt to be indifferently done. As the disease permits of no temporizing, it is for the interest of the patient that the most effective means possible for its control be brought into use at the earliest possible moment. This, we believe, means the internal use of mercury, and perhaps the administration of arsphenamine.

Neoarsphenamine, on account of its readiness of preparation, is preferable. However, the real value of arsphenamine or its congeners in congenital syphilis has not been positively proven. In fact, the writer is inclined to agree with Kerley, who says: "Are we justified in discharging the patient and allowing him to pass from our observation? My experience proves the contrary, nor can I state that congenital syphilis is ever cured. Many patients, apparently cured, have, after three or four years, applied again for treatment because of the presentation of some manifestation of a tertiary character—a so-called 'tardy hereditary syphilis.'" Probably, every so-called cured congenital case should be subjected to the Wassermann test every two years.

In administering arsphenamine or neoarsphenamine to a child, all that is needed

is a small 5-mils. glass Luer syringe with a 22-gauge needle. The patient is tightly wrapped in a sheet, to secure the hands to the sides, in order to prevent struggling, and then placed on the table with the head hyperextended over the end and turned to whatever side is desired. The needle is then readily inserted into either of the auricular veins during a paroxysm of crying. These veins are chosen because of the fact that they lie more superficially and are more firmly bound by connective tissue, thus facilitating the introduction of the needle. The external jugular veins may be used in a similar manner. In older children, the median basilic or other vein may be selected.

For older children, 0.1 Gram of arsphenamine or 0.15 Gram of neoarsphenamine may be given every two weeks for three doses, then at two- or three-month intervals. Local and general reactions are rare and of no consequence. The progress should be estimated by frequent Wassermann tests.

Tannate of mercury, or the bichloride, in very small doses, may be given in place of gray powder. Sometimes, it is advisable to give children from 1 to 5 grains of sodium iodide in alternation with the mercury.

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QUERY 6508.—"Cataphoretic Use of Chlorazene and Procaine." J. H., Kansas, inquires: "Which pole of a galvanic battery should be used with a solution of chlorazene; also, which can be used with procaine? I am familiar with the use of other agents but would like to have some information regarding these two. To be plainer, if I want a deep antiseptic, healing, stimulant effect, say, on an ulcer, and wanted to use chlorazene, would I make the pole saturated with the solution positive or negative? Also, in relation to procaine for anesthetic effect. I feel sure that procaine can be made a boon in that respect if we know which pole to use."

As we have never attempted to use chlorazene or procaine cataphoretically, or rather, by iontophoresis, it is difficult to answer your question.

Naturally, as alkalies, alkaloids, and the salts of metals and bases, are electropositive, they are introduced by connecting the active electrode with the positive pole.

Acids, on the other hand, being electro-negative, are introduced at the negative pole.

Under these circumstances, we would be inclined to believe that both, ch'orazene and procaine, should be introduced at the positive pole. However, we are not at all sure what reactions might occur with chlorazene. We shall have to experiment in this direction. Should anything of interest develop, we will communicate with you further. In the mean time, we should greatly appreciate a report of your own experience with either chlorazene or procaine, or both.

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QUERY 6509.—“A Question of Diagnosis.” M. A. H., New York, writes: “I should like to have your opinion on the following cases, as physicians who did not see them have seen fit to take issue with my diagnosis.

“1. Child weighing twelve pounds, born after intermittent labor of thirty-six hours—real labor about five hours—asphyxiated and resuscitated after vigorous work.

“This child (from birth) had a peculiar hoarse cry and the ‘snuffles.’ When three days old, there appeared an eruption over the entire body—exfoliation in all skin folds and small, red, discrete patches over rest of body, except buttocks where they were raw and of a purplish color. On fifth day, there developed a profuse diarrhea, which continued in spite of all treatment until death on the eleventh day. Father had repeated Wassermann tests (in army), all of which were negative; mother never submitted to test.

“2. Strong, vigorous boy, 6 years of age, fell from back of automobile, incurring slight contusion and abrasion of one knee and abrasion of one cheek—also had profuse epistaxis.

“Three days later, the boy walked into my office with his father and simply complained of a “slight soreness on side of knee,” but, there were no signs of injury but the abrasion which had nearly healed.

“Two days later, I was sent for and found the boy suffering (apparently) from a slight attack of grip—temperature 100° F. with some headache and some slight soreness of body.

The next day, he had a chill and a tem-

perature of 105° F. and was delirious; there were constant slight chills and a moderate rigidity of the injured knee.

This condition continued for four days when the boy died. Temperature ranged from 103.5 to 105° Fahrenheit; pulse 156; respiration 55 to 65 and delirium constant. Spinal fluid was negative. Two other physicians saw this boy, but declined to make a diagnosis.

The following physical signs were found; slightly decreased respiratory fremitus over base of right lung with very slight dullness, slight rigidity of neck and of injured knee. No abnormal condition was found by any of us in the knee.

I made a diagnosis of acute endocarditis, and acute lobar pneumonia (probably septic).

A former family physician, who was out of town during the boy's illness and did not even see the body after death, informed the mother that her boy died from a septic condition of the injured knee and did not have endocarditis or pneumonia.

In case No. 1, we naturally would off-hand advance the diagnosis of congenital syphilis, basing our conclusion upon the peculiar hoarse cry, the existence of “snuffles” and the appearance, three days after birth, of an eruption, with exfoliation in all skin folds, and the subsequent development, after the fifth day, of profuse diarrhea, which persisted despite all treatment until death on the eleventh day. The only remarkable feature of the case is that the child weighed 12 pounds at birth.

In the second case, it seems to us that, if an endocarditis existed, it was a terminal complication, and that this child died from meningitis. The clinical history, in our opinion, is very distinct; namely, injury, profuse epistaxis, chill, subsequent high temperature, constant delirium, and death.

The injury to the knee may, we think, be almost entirely excluded from consideration.

Had the skull been opened post mortem, we believe that you would have found a somewhat extensive clot.

Naturally, these opinions are advanced tentatively, with full appreciation of the fact that you, having observed the cases throughout, are in a much better position to form definite conclusions than we are.